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AUTHOR Stofflet, Fred; Fenton, Ray; Straugh, Tom
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ABSTRACT

In the year 2000, the Alaska High School Graduation Qualifying Examination (HSGQE) was given for the first time. The HSGQE is currently scheduled to be a graduation requirement for all students graduating as of January 2002, but early results from the use of the HSGQE in the Anchorage school district raise serious questions about the use of the test, especially the mathematics portion, as a graduation requirement. In response to a state survey, more than 20% of teachers surveyed responses that they offered little or no instruction relative to 7 of the reading standards in the survey, 1 of 3 writing standards, and all of the mathematics standards. The validity of the graduation tests as they related to what is actually taught in Alaskan schools is seriously questioned by these responses. The statistical results from Anchorage raise some questions about validity, with 78% of students passing the reading test, 51% passing the writing test, and only 36% passing the mathematics test. Majority students did better on the tests than did minority students. Results from the HSGQE were highly correlated with results from the California Achievement Tests (CAT) administered within 1 month of the HSGQE. Comparison of CAT and HSGQE scores showed that the mathematics test was much harder than the reading or writing tests. Data for the mathematics test seem to show that more advanced courses than algebra and geometry are required to pass the test, calling into question its use as a minimum competency test. The paper suggests that the legislature, the state administration, local school boards, educators, parents, and students all have roles to play as the HSGQE is finalized and put into place. Six appendixes contain seventeen tables of test results for specific areas. (Contains 43 tables, 9 figures, and 41 references.) (SLD)

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Executive Summary

Fred Stofflet
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Tom Straugh

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Construct and Predictive Validity of the Alaska State High School Graduation Qualifying Examination: First Administration

Executive Summary

Fred Stofflet, Anchorage S.D
Ray Fenton, Anchorage S.D.
Tom Straugh, Anchorage S.D.

The Alaska *High School Graduation Qualifying Examination* (*HSGQE*) and the Alaska *Benchmark Tests* were administered for the first time in spring 2000. The *HSGQE* was administered as a make up in fall 2000. Analyses of results from the Anchorage School District raise serious questions about the use of the *HSGQE*, particularly the math portion, as a graduation requirement for all Alaskan students.

The calendar year 2000 saw the first live administration of new tests in Alaska, the *High School Graduation Qualifying Examination* (*HSGQE*) in spring and fall, and the *Benchmark Tests* in the spring only. These examinations are designed to test the Alaska performance standards in language arts and mathematics at four points throughout a student's public school career. The *Benchmark Tests* are intended to be diagnostic in nature, providing information on students' progress through the grades, and specifically at grades 3, 6 and 8. The *HSGQE* is currently a graduation requirement for all students graduating from a public school in Alaska as of January 2002 or later. That requirement is currently under discussion and debate across the state and specifically in the legislature where various options are under consideration for possible delay of the implementation of the *HSGQE* as a graduation requirement.

This paper is intended to provide some information regarding the tests under review. The concept of "validity" relates to the uses being made of the tests, and the appropriateness of the tests for those purposes. "Is the test valid?", is a contextual question that can not be addressed without knowing the answers to, "For what purpose?" and "With what group?"

The study summarized here relies mostly on statistics derived from Anchorage's experience with the state tests over the year 2000, but also reviews some survey information collected by the state from teachers and students around the state.

While the state tests are developed to measure the state adopted performance standards, those standards are relatively recent statements, having been adopted by the state in 1999. The question of whether or not those standards have permeated the educational offerings across the state is still subject to discussion. In response to a state survey, better than 20 percent of the responding teachers indicated they offered "little" or "no" instruction relative to seven of the 14 reading standards included in the survey, one of the three writing standards, and all of the 27 math standards. The validity of the tests as they relate to what is actually taught in Alaskan schools is seriously questioned by such responses, especially in the mathematics area.

Anchorage's statistical results on the tests raise some questions regarding validity, again more specifically regarding the math tests than the reading and writing tests. Anchorage sophomores in the spring 2000 reflected the pattern of the state as a whole, performing best on the reading test with some 78 percent passing, performing next in writing with some 51 percent passing, and performing most poorly in math with some 36 percent passing. Upon re-testing in the fall, continuing students demonstrated growth even though they had received their scores from the spring testing only about one month prior to the re-test.

Anchorage results demonstrate that majority students fair better on the tests than do non-majority students. Caucasian students passed all the tests at a higher rate than did students from other racial-ethnic backgrounds. Students whose home language was other than English and students with identified special education needs performed less well on the tests than did students without those exceptionalities. Female students passed the reading and writing tests at rates exceeding those of their male counterparts and matched their male counterparts on the math tests. These performances are similar to differences noted on norm-referenced tests over the years, but call into question the validity of the tests for all groups of students and raise questions regarding the instructional practices of the schools that have resulted in theses differences.

Performances on the *HSGQE* for Anchorage sophomores were compared to the same students' performances on the *California Achievement Tests, Form 5* (*CAT*), administered within one month of the *HSGQE*. The *HSGQE* and the *CAT* were highly correlated, meaning that students who scored high on one of the tests tended to score high on the other test and students who did poorly on one test tended to perform poorly on the other test.

When actual performance levels were compared, it was found that the "cut" score (the lowest passing score) on the reading portion of the *HSGQE* corresponded to the 25th percentile on the Total Reading portion of the *CAT*. The cut score for writing corresponded to the 60th percentile

on the Total Language Arts portion of the *CAT*, and the math cut score corresponded to the 81st percentile on the Total Mathematics portion of the *CAT*. The percentiles mean that in the national population of sophomores, about 75 percent would have passed the state's reading test, about 40 percent would have passed the state's writing test, and about 19 percent would have passed the state's math test. Obviously the math test is much harder then the reading or writing tests. The question is, "Why?" Once again the purpose of the tests, to permit or deny graduation, is called into question, especially for the math portion of the *HSGQE*.

When the pattern of courses taken by students was compared to *HSGQE* performance, some expected observations were noted. Students who were at or ahead of the normal program in English passed the reading and writing tests at a higher rate than did students who were behind the normal pattern of English courses. Students who had earned grades of "A" or "B" passed at higher rates than did students who earned "C" or "D", with better than 90 percent of the on-target "A" and "B" students passing the reading test and better than 70 percent of the "A" and "B" students passing the writing test. The fact that the reading passing rates were higher than the writing passing rates may indicate a need for a writing course in the junior or senior year, a current Anchorage graduation requirement.

The math passing rates followed a similar pattern. Students who had completed geometry passed at a higher rate than did students who had not completed geometry. Similarly, students who earned "A" or "B" grades in core math courses (algebra and geometry) outperformed their peers who earned "C or "D" grades, with some 78 percent of the "A" and "B" students passing. What is somewhat discouraging is that only 49 percent of the total group of students who had passed geometry by the end of their sophomore years, but who had not yet taken more advanced courses in math, passed the state math test. The assumption had been that algebra and geometry were an adequate preparation for the math test, but the data seem to show otherwise suggesting that more advanced study was required to pass the test. Again, this calls into question the validity of the test as a minimum competency test for graduation from high school. The test may be requiring the development of skills and the understanding of concepts that are well beyond the basics needed for success later in life.

Finally, the paper suggests that the legislature, the state administration, local school boards and educators, and parents and students all have a role to play as the state *HSGQE* is finalized and put into place. The legislature must deal with timing, resource provision, and the issue of "all students" as is written into the current law. The state administration must continue to develop and refine the standards and the assessments to insure that reasonable and fair expectations are

being targeted and tested for Alaska's students. Districts and schools must insure that local curriculum, materials, and instructional practices provide motivated, interested students with the opportunity to learn what will be expected of them. Principals and teachers must understand what is expected of students and provide instruction in line with the expected standards, based on information relative to students' progress. Parents need to understand what is expected of their students and provide support and encouragement for the students to succeed. Student must understand what is expected of them and be motivated enough to work to attain the results that are desired. All have a role in attaining success, but one step at the state level is to insure that the tests used to judge success are fair and reasonable; that is, insure that the tests are valid for the purposes to which they are being used and for all of the populations groups within the state. Right now, there are serious questions regarding the validity of the tests, especially the math tests, as minimum competency tests for all students in the state.

Construct and Predictive Validity of the Alaska State High School Graduation Qualifying Examination: First Administration

Fred Stofflet, Anchorage S.D
Ray Fenton, Anchorage S.D.
Tom Straugh, Anchorage S.D.

A paper prepared for presentation at the 2001 American Educational Research Association Convention in Seattle WA
April, 2001

To laugh often and much
To appreciate beauty
To find the best in others
To leave the world a bit better
To know even one life has breathed easier because you have lived

This is to have succeeded

R.W.E.

This paper could not have been prepared without the assistance of the staff of the Curriculum and Evaluation Department of the Anchorage School District. Special thanks goes to Dr. Joan O Leary for her thoughtful comments and suggestions.

Reprints are available from the Assessment and Evaluation Department of the Anchorage School District, P.O. Box 196614, Anchorage, AK 99519-6614.
Phone: 907-787-3829

Construct and Predictive Validity of the Alaska State High School Graduation Qualifying Examination: First Administration[1]

Fred Stofflet, Anchorage S.D
Ray Fenton, Anchorage S.D.
Tom Straugh, Anchorage S.D.

Without validity, a test score has no value. In the case of a high-stakes examination such as the Alaska High School Graduation Examination, a lack of score validity can result in students being improperly placed in remedial classes, sent to summer school, and refused a high school diploma. The injury to individuals by high stakes tests lacking validity can be measured in a lifetime of harm.

Although our conception of test validity has evolved over the years (Shepherd, 1997), the current view is best stated in our national standards for educational and psychological testing (JCTP, 2000).

> - Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests.
> - Validity is, therefore, the most fundamental consideration in developing and evaluating tests.
> - The process of validation involves accumulating evidence to provide a sound scientific basis for the proposed score interpretations.
> - It is the interpretations of test scores required by proposed uses that are evaluated, not the test itself. When test scores are used or interpreted in more than one way, each intended interpretation must be validated (p. 9).

The authors of the *Standards for Educational and Psychological Testing* indicate that there is no simple checklist of the types of evidence that are critical for specific score uses; instead they suggest that the intended uses of scores shape the argument that must be put forward to justify the intended interpretation. In the case of a high stakes test like the Alaska High School Graduation Qualification Examination (HSGQE) in reading, writing and mathematics the justification for denial of a diploma would have to be carefully detailed. It would have to include:

a) identification of the knowledge and skills that are prerequisite to high school graduation,
b) demonstration that the items on the test are consistent with that knowledge and skill,
c) demonstration that the scores generalize to performance across the content domain to allow development of equivalent forms,
d) demonstration that the scores are not unduly influenced by ancillary abilities,

[1] Elements of this paper were first presented in an Anchorage School District internal report on the performance of Anchorage students on the Alaska High School Graduation Examination (Stofflet et al, 2001).

e) evidence that success on the test is related the instruction intended to prepare a student for a diploma,
f) evidence that those selected by the test are more successful than those who are not when directly assessed on their schooling, and
g) documentation that no undue influence comes from individual characteristics such as gender or racial-ethnic heritage.

Various sources of evidence for test validity are suggested by the Joint Committee on Testing Practice (1999):

1. Evidence based in test content.
2. Evidence based on the response process.
3. Evidence based on internal structure (differential item functioning).
4. Evidence based on relations to other variables (external criteria) including convergent and divergent evidence, test-criterion relationship, and validity generalization.
5. Evidence based on the consequences of testing such as differential effects.

A good deal of information on various elements of the Alaska High School Graduation Examination is available from a number of sources. Information on examination content included in this paper largely depends on documents published by the State of Alaska Department of Education and Early Development and the primary testing contractor for the State of Alaska, CTB/McGraw-Hill.

This paper looks at student performance on the first administration of the Alaska High School Graduation Qualification Examination within the context of the Anchorage School District to see if the information available on students who have participated in the HSGQE and associated Benchmark exams provides support for the validity of scores and classification of students.[2]

How Alaska came to have the Alaska High School Graduation Qualifying Exam.

Alaska came to a high-stakes graduation examination through a number of steps. The recent past demonstrates an effort to reflect national trends in school accountability that has been led by politicians and business leaders. The governor of Alaska, Tony Knowles, attended the National Education Summit in March of 1996, with the president of ARCO Alaska, Ken Thompson, and Commissioner of Education, Shirley Holloway. They advocated a program called the Alaska Quality Schools Initiative. In October of 1996, Knowles, Holloway, and Thompson hosted an Alaska Education Summit with the goal of raising the bar for students and schools. House Bill 146, the Exit Exam Bill was introduced and after some modification was passed into law and signed into law in May, 1997 setting the requirement for the class of 2002 to pass examinations in reading, writing and math. The test was to be administered to 10th graders starting in 2000.

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[2] Special thanks goes to Dr. Richard Smiley of the Alaska Department of Education and Early Development for copies of public documents and to Dr. Carol Mell and the staff of the Anchorage School District Information Technology Department for assistance in the creation of data files on student course taking patterns and student grades.

CTB-McGraw-Hill was hired to develop the exam in the spring of 1998, and performance standards in reading, writing, and math were developed by September of 1999. The first administration of the HSGQE was completed in March 2000. The contractor convened Bookmarking Committees to set cut scores in June of 2000 and the State Board of Education adopted cut scores in September 2000.

Test scores from the first administration of the Alaska HSGQE were reported to school districts and students after the start of the 2000-2001 school year. Most students received their score reports less than a month prior to the first opportunity to participate in a retesting.

Initial pass rates were not as high as hoped. Immediately controversy over the tests, score setting process, and student outcomes began that continues at the time this paper is being written. Six bills are now pending before the Alaska Legislature with proposed remedies that range from elimination of all testing, to elimination of the test based graduation requirement, to maintaining the current cut scores but delaying implementation of the graduation requirement to 2006.

This paper is a first step in the review of the evidence that is available concerning the validity of the Alaska High School Graduation Qualifying Examination. It raises questions that the authors feel must be taken up by legislators, citizens, and educators in Alaska. Some of the findings and arguments developed may be of use to other scholars interested in what is needed to justify initial efforts at establishing high stakes examinations. We begin with a look at what should be tested.

What should be tested to establish who should qualify as an Alaska high school graduate?

Alaska is no different than many other states in the attempt to initiate educational reform through holding students hostage to test scores. Unlike some other states, Alaska did not establish student performance standards to serve as the basis of it s high stakes examination until after the examinations were in the works even though the importance of clear standards and performance expectations was well known.

> Conversion of the U.S. education systems to out-come-based governance requires deciding just what it is that students ought to be learning in school, both what we would like them to learn and what can reasonably be expected. That is, we need to set clear goals and standards for learning results.
>
> Establishing education standards, however, represents a considerable challenge for the United States, for, despite our passion for testing and measurement, we have historically avoided specifying exactly what the outcome criteria for education are. America is virtually alone in the world in not having a system of public examinations that sets targets of achievement for students and teachers in the schools (Resnick and all, 1995, p. 439).

The Alaska Legislature failed to give much guidance when it put the requirement of passing a test to qualify for a high school diploma into law. The full statute calls for establishing standards based exams in reading, writing, and mathematics. It establishes the requirement that only students who pass the examination be allowed to graduate from an Alaska public school starting in 2002. The laws of Alaska now state that:

> **Statewide Student Assessment System.**
>
> The commissioner shall develop a statewide student assessment system composed of multiple indicators, which must include (1) a standardized norm-referenced test selected by the commissioner to measure student achievement in reading, language arts, and mathematics in grades four and seven; (2) a standards-based test to measure student attainment of the performance standards adopted by reference in 4 AAC 04.150; and (3) a state high school graduation qualifying examination selected by the commissioner under 4 AAC 06.755.

The state s effort to establish standards for Alaska schools started almost ten years prior to the legislation that required testing, but no formal performance expectations had yet been established for high school graduation. Early versions of Alaska standards, designed to guide instruction rather than provide the basis for measuring outcomes, had been given low marks by the AFT and Achieve. To meet the need for performance benchmarks to serve as a basis for the examination, the state called on educators to establish performance indicators in 1998. These revised standards then became the basis of the HSGQE. (Alaska Department of Education and Early Development, 2000).

The importance of the quality of the standards and their actual impact on instruction is critical to the validity of the standards-based assessments. Many authors have addressed the problem of less-than-adequate standards resulting in less-than-perfect targeting of instruction and development of test items (e.g. Linn (2000). The findings of Marzano and Kendall (1998), relating to state standards, are unfortunately, fairly typical.

> The most damaging finding . . . is that most state documents simply have weak standards . . . This lack of specificity in state documents has caused significant opposition to the standards movement. . . . The vast majority of states have standards that are so vague that they will probably have to be reworked or even totally rewritten by schools and districts . . . even where a sound state standards document exists, the schools and districts in that state might still find it necessary to engage in a great deal of standards writing and redesign if they wish to implement a standards-based approach (p. 2).

In 1999, Alaska standards and benchmarks were widely distributed and school boards were instructed to adopt the state standards or their equivalent prior to implementation of the assessment system. The state standards are currently posted on the Alaska Department of Education (DEED) WWW site (www.deed.ak.state.us). The standards and benchmarks were

also printed as a booklet and copies were distributed to the school districts throughout Alaska. However, no study was conducted to establish what, if any, impact the standards made on the selection of teaching materials, curriculum or the alignment of instruction to assure students could reach expected state benchmark performances.

Many Alaska school districts, like Anchorage, adopted the state standards and developed benchmarks for student performance that elaborated on the state standards and benchmarks. Anchorage posted benchmarks on the world wide web for all to review (www.asd.k12.ak.us). Anchorage is making an effort to institutionalize the standards through publicity, inclusion in in-service training of principals and teachers, distribution of information to parents, and inclusion of benchmarks in the consideration of curriculum changes and textbook selection. With the Anchorage six-year review cycle, all areas should be aligned with standards by 2006.

The Anchorage School Board linked standards to District performance goals in 1999. To date, no study has been conducted to establish what impact, if any, the standards have made on the actual content of instruction.

Establishing the standards as part of the Alaska education system is a key element in making the HSGQE score a meaningful indicator because the test was developed to reflect the Alaska standards rather than to directly reflect what Alaska students actually know or can do. The Alaska standards became the driving force behind the content, design, and structure of the tests (CTB/McGraw-Hill, 2000).

The CTB/McGraw-Hill technical report on development of the 2000 High School Graduation Qualifying Examination and the Benchmark tests makes the importance of the standards clear:

> The purpose of the Benchmark and the HSGQE is to document student performance in the areas of reading, mathematics, and writing as defined by the 1999 Alaska Performance Standards (APS).
>
> To ensure that test scores allow interpretations appropriate for this purpose, it is necessary that the content of the test be carefully matched to the specified standards. Evidence of content-related validity is of primary importance in the Benchmark and HSGQE (p. 7).

Most of the activities initiated to assure the validity of the High School Diploma Graduation Examination were undertaken by CTB as the State of Alaska s primary testing contractor. According to the CTB/McGraw-Hill (2000) *Technical Report*:

> . . . the content validity of the Benchmark and the HSGQE was determined by judging the extent to which test construction plans and procedures could reasonably be assumed to ensure validity. The general procedures used in test development were as follows:

1. The Alaska Performance Standards were developed with the involvement of instructional specialists.
2. The standards and skills were deemed acceptable. Educators and citizens were involved in this process.
3. Item specifications were written for each APS.
4. Test items were written according to the guidelines provided by the item specifications.
5. The draft items were reviewed by instructional specialists and practicing teachers. Revisions were made when necessary.
6. The test items were subjected to editing, as necessary (pp. 7-8).

Steps three through six were undertaken by CTB/McGraw-Hill. Groups of Alaskans were guided by CTB through the review of test items for cultural, ethnic, language and gender bias. Constructed response items were pilot tested in Alaska classrooms and potential test items were field-tested with 10th graders in spring 1999.

The process of test and item development was typical and was supported by a competent and complete technical analysis of indicators of internal test validity. Alaskans took an active part in the development and review of the standards and in certifying that the items developed for the tests were bias free. Unfortunately, the process did not make any close examination of external validity through the examination of instruction and actual learning. No effort was made to establish the extent to which students are getting the direct instruction needed in the standards areas to prepare them to answer the specific items included in the tests.

This issue of the relationship between the opportunity to learn (OTL) and the assessment system is a central issue in Alaska and is to some extent addressed indirectly from the Anchorage data through the analysis of course-taking patterns, grades, and performance of Anchorage students who completed the HSGQE. The State of Alaska addressed the problem by working with CTB/McGraw-Hill to conduct an Opportunity to Learn survey of teachers and students.

To what extent is there evidence that instruction is provided to Anchorage students in the knowledge and skills on which student graduation qualifying examination score is based?

In all fairness, the first question we must ask regarding a standards-based test used to determine if a student will get a high school diploma is: Did we provide the student with the instruction needed to answer the questions on the test?

When a student sits down to take a test, there are many factors other than instruction that appear to affect performance: individual ability, motivation, skill in test taking, physical condition, and experiences outside of the school setting, including native language. All of these individual circumstances have been researched and found to be critical components of test scores, but they have to be set aside as concerns in a test that is established to judge the adequacy of acquisition of the skills and knowledge that students acquire at school.

Performance affecting factors that are a property of the individual rather than a property of the school program are problems that have to be overcome through instruction to assure fairness in the decision to grant or withhold a diploma.

In an effort to establish that students were being given the opportunity to learn (OTL) the knowledge and skills required for success on the Alaska High School Graduation Qualification Examination, CTB/McGraw-Hill developed a survey based on the Alaska performance standards. The survey was distributed in close conjunction with the administration of the March 2000 test administration (CTB/McGraw-Hill, 2000).

The survey asked teachers how much emphasis they gave to specific standards. A similar survey was given to students asking if they had been exposed to instruction relative to certain standards related skills.

Three elements were of concern to the Alaska State Department of Education Technical Advisory Committee when the results of the surveys were reviewed.[3]

- The questions asked were general and reflected standards content without referring to the specific knowledge and skills included in the questions on the High School Graduation Qualifying Examination.
- The survey of teachers took place some time after the examination and the number of teachers responding was not substantial.
- The teacher survey was limited to test proctors who, under Alaska regulations, are not allowed to proctor exams for students they instruct and who may not represent the teachers that provide instruction to students in grades 9 and 10 in reading, writing, or math.

Results of the Alaska survey are summarized from Table 4 of the CTB/McGraw-Hill (2000) survey report. That report makes no suggestion regarding what results might be expected from an OTL survey or about what level of opportunity might be deemed acceptable as an indicator that students have been given a fair chance to acquire the knowledge and skills tested. The results indicate that, particularly in the area of math, teachers did not report substantial levels of opportunity to learn.

Teacher s Responses to Reading Standards

Reading survey items related to 14 specific benchmarks. For 7 of the 14 benchmarks, at least 20 percent of the teachers characterized the coverage they provided as little or none. These benchmarks cover a wide area and include: R4.1 vocabulary, R4.2 evaluation of themes, R4.5 critique of arguments in public documents; R4.7 evaluation of techniques used in fiction (short story, drama, novel, and poetry); R4.8 how authors use narrative elements; and, R4.10 the analysis and evaluation of themes across a variety of tests using textual and

[3] Two of the authors, Ray Fenton and Tom Straugh, serve as members of the State of Alaska Technical Advisory Committee. The discussion took place at the committee meeting help on Friday, March 16, 2001 in Anchorage. Dr. Richard Smiley, Coordinator for Standards and Assessment, of the Alaska Department of Education and Early Development chaired the meeting.

external evidence. In the worst case, over 38 percent of the teachers indicated no emphasis was given to instruction in the area.

Teacher s Responses to Writing Standards

Writing has only three standards and only one of these, revision of writing (W4.4), had more than 20 percent of the teachers reporting that they had provided little or no instruction on the OTL survey. Use of the conventions of Standard English had the highest number of teachers answering that they had provided some or much instruction in the area, 89 percent.

Teacher s Responses to Math Standards

Math has a total of 27 standards tested and all had 20 percent or more of the teachers saying that they have given little or no emphasis to the area. Thirteen of the math standards had more than 40 percent of the teachers saying that no emphasis was given to the standard. Four had more than 50 percent of the teachers saying no emphasis was given to the standard.

Student s Responses to Instruction Related Items

Students were asked if they felt that skills had been taught in the areas of the tested standards. A selection of standards and the number and percent of students that say they had instruction are reported in Table 1. When the survey numbers are compared with the number of students tested, it is clear that about two-thirds of the students tested responded to individual survey items. Survey questions were not specific as to the actual skills and knowledge required to answer specific test items.

The problems with the surveys as a basis for establishing the validity of the tests and of the test scores are obvious. The questions relative to the broad benchmarks or standards give little clue as to actual instruction or exposure to the specific skills tested. No link is established through the questions to the depth of instruction, the difficulty of items, or the expected response formats.

Meaningful interpretation of survey questions on OTL are difficult. The questions presented to teachers and students do not seem to help understand what instruction took place. But even a survey that presented the specific problem with more direct questions such as could your student correctly solve this problem and can you solve a problem like this might still provide overly optimistic responses.

The only way to really find out about the quality of instruction and learning in Alaska is to dig deeper and to observe the teachers instruction and students related demonstrations of knowledge and skill. This type of study is, of course, just what seems to be suggested by the Joint Committee in the *Standards for Educational and Psychological Testing* (1999).

Nick Stayrook (2000) completed a statewide survey of exam proctors that included some information on the test administration and the reactions of proctors to the content of the tests, adding some credence to the notable OTL survey differences between language arts and

Table 1

Responses of Alaska Sophomores to Question of
Were They Provided Instruction in the Areas of Specific Standards
Spring 2000

Area/ Standard	Number Yes	Percent Yes	Number No	Percent No
Reading:				
RW10: identify techniques used in short stories, dramas, novels	2,057	75%	652	24%
RW12: analyze author s use of plot, setting, character, and point of view	2,355	86%	350	13%
RW11: determine the effect of writing techniques on the reader	1,784	65%	920	34%
Math:				
M10: how to order real numbers	2,383	87%	249	9%
M2: how to find missing dimensions in geometric figures	2,154	79%	503	18%
M8: how to solve problems using ratio, proportion or percent	2,224	81%	432	16%
M7: how to analyze patterns, expressions, and equations	2,334	85%	315	12%
M4: how to solve problems using properties of lines and angles	2,136	78%	521	19%
M8: how to graph linear equations	2,196	80%	462	17%
Writing:				
RW15: how to write a report or story using correct grammar and form	2,472	90%	230	9%
RW16: how to check your paper for correct sentence structure and paragraphs	2,390	87%	320	12%
RW17: how to check your work for correct capitalization and punctuation	2,533	93%	173	6%
RW19: how to rewrite your work to improve its organization	2,320	85%	364	13%
RW21: how to make sure your paper is written clearly for a specific audience	2,139	78%	519	19%

mathematics. Proctors were asked an open-ended question about whether or not the exams fit well with the Alaska standards. Some felt that they did and some felt that they did not. Some teachers felt that the items were too hard and would discourage students. Other teachers felt that items were too easy for their gifted students. Some teachers felt that the tests were a good indication of what the schools should be teaching but not what was being offered to students. Many felt that math was too hard and beyond what was being taught.

There were also differences in test completion times reported between urban and rural students. Urban students were about 6 minutes faster for reading, about 12 minutes longer for writing, and about 30 minutes longer for math. The time difference in math raises a question about completion rates in rural districts and what differences may exist in how students responded to the tests. It would be interesting to know how many items were attempted by various groups of students. For example, if students from specific settings did not attempt items that related to certain standards, those standards may not have been covered in instruction.

The overall poor performance of students in some Alaska rural districts raised issues that are well summarized by Dr. Ray Barnhard of the University of Alaska:

> . . .making sure students have had the opportunity to learn the subject matter on which they are being tested is more readily identifiable as a problem, but no less complicated (and expensive) in producing a solution. If a small rural school is not offering the level of mathematics instruction that students need to pass the exam, the solution is not to send the students elsewhere for schooling . . . . . Boarding schools may be justified as an optional alternative program for selected students, but not as a substitute for most. Under the banner of all students can learn to high standards, teachers will be admonished to teach harder and more whatever it is that students are determined by the tests as lacking (p. 3).
>
> While this may seem logical on the surface, it ignores the possibility that the real issue may not be low expectations at all (although this certainly does exist) and that more of the same may exacerbate the problem by producing higher dropout rates rather than addressing the more fundamental issue of lack-of-fit between what we teach, how we teach it and the context in which it is taught (p.3).
>
> Intensifying the current curriculum and extending schooling to the weekend or summer also ignores the inherent limitations of school improvement in rural Alaska that result from having to import teachers and administrators for outside for the village schools.
>
> When providing opportunities to learn, we need to consider all aspects of a child s upbringing and prepare them in such a way that they can become responsible, capable and whole human beings in the process (See Alaska Standards for Culturally Responsive Schools).

There is no way to directly relate the CTB/McGraw-Hill or state proctor surveys directly to Anchorage or to examine the differences that may exist among Anchorage schools based on OTL. However, the surveys do raise questions about the chances that students have had to prepare for the HSGQE and differences in programs offered by individual schools that serve local communities that have notable demographic and cultural differences.

While the Alaska High School Graduation Qualification Examination is generally described as a 12th grade test, the reality in Anchorage is that the specific instruction related to the test content is expected to take place by the time students have completed courses such as English 10-2 and Geometry, courses that are offered in the 10th grade. Direct instruction in the standards may take place in later courses, or in 11th and 12th grade for students that have lagged behind.

What can we learn from how Anchorage students did on the HSGQE?

The Anchorage School District has collected information on students over a number of years. The Anchorage Student Management System is used to document the participation of students in programs including Special Education, Title I, and Bilingual Education as well as eligibility for participation in free and reduced-price lunch programs. Student transcripts include information on grades received and courses taken. Performance on the California Achievement Tests Form 5 Basic Battery has been recorded starting in 1995-1996. Unique student identification numbers are used to organize and relate all Anchorage student information.

The State of Alaska Department of Education and Early Development allowed district student identification numbers to be coded on the Alaska High School Graduation Qualifying Examination and Benchmark tests. Electronic records of student performance, including scale scores and student classifications, were provided following testing. After review and editing to assure that identification numbers matched students and duplicate records were removed, databases were merged to establish links between student HSGQE data and district data.

The Anchorage School District is the largest school district in Alaska, housing better than 49,500 students. The first review of Anchorage data will present status results from spring and fall 2000. Then an exploration will be made of the relationship for Anchorage students of performances between either the HSGQE or the *Benchmark Tests* and the *CAT*. A final review will present the relationship between HSGQE performance and English and Mathematics courses taken.

Anchorage High School Graduation Qualifying Examination Results -- Overall

Some 3,135 Anchorage sophomores sat for one or more parts of the HSGQE in the spring of 2000. Their performances, by tested area, are summarized in Table 2. Better than three-fourths of the tested students passed the *Reading Test*, while about half passed the *Writing*

Table 2

Anchorage School District
Performances on the High School Graduation Qualifying Examination
Students Tested as Sophomores
Spring 2000

Test Area	Number Tested	Percent Pass
Reading	3,047	78%
Writing	3,031	51%
Mathematics	3,006	36%

Test, and just over one-third passed the *Mathematics Test.* Anchorage students were clearly better prepared to meet the State expectations in the Language Arts areas than they were in the Mathematics area.

The HSGQE was also offered in the fall of 2000 to juniors who had not yet passed one or more of the specific tests. This population included students who were new to Alaska as well as continuing students who had not taken or who had not passed one or more of the tests administered in the previous spring.

In the fall of 2000, some 2,184 Anchorage juniors sat for one or more portions of the *HSGQE.* As might be expected based upon the results from the spring, more students sat for the *Mathematics Test* than either the *Reading* or *Writing Tests.* Also, more students took the *Writing Test* than took the *Reading Test.* Table 3 presents a summary of performances on the HSGQE for the Anchorage juniors tested in the fall of 2000.

Table 3

Anchorage School District
Performances on the High School Graduation Qualifying Examination the High School Graduation Qualifying Examination/
Students Tested as Juniors
Fall 2000

Test Area	Number Tested	Percent Pass
Reading	864	48%
Writing	1,553	24%
Mathematics	1,913	22%

The fall passing rates were low for all areas tested. Less the half of the students who took the tests passed the *Reading Test* and less than one-quarter passed either of the *Writing* or *Mathematics* Tests. A further detailing of the fall results is presented in Table 4. In this review students were classified as continuing students who were retaking the particular examination, as continuing students who were taking the particular examination for the first time , or as students who were new to the district in their junior year.

Clearly the students who were retaking the examinations did not perform as well as either group, continuing or new, who were taking the tests for the first time. Less than one-third of the students who were taking the tests for the second time passed any of the specific examinations.

Table 4

Anchorage School District
Performances on the High School Graduation Qualifying Examination
Students Tested as Juniors
Breakdown by Continuity Status
Fall 2000

	Continuing ASD Students: Second Attempt		Continuing ASD Students: First Attempt		New to ASD Students: First Attempt		All Test Takers	
Test Area	Number Tested	Percent Passed	Number Tested	Percent Passed	Number Tested	Percent Passed	Number Tested	Percent Passed
Reading	440	30%	327	65%	97	71%	864	48%
Writing	1,119	19%	323	36%	111	37%	1,553	24%
Mathematics	1,468	20%	333	27%	112	28%	1,913	22%

Figure 1 presents a graphic review of the passing rates exhibited by Anchorage students on the Spring 2000 and Fall 2000 administrations of the HSGQE. In comparing performances across test administrations, it is clear that the students who tested for the first time in the fall of 2000 were similar to, but scored slightly lower than, the students who tested in the spring of 2000. The students who were re-tested in the fall had less success than those testing for the first time in the fall. It should also be noted that the tests administered in the spring and fall were different forms. The testing contractor equated the tests based on trial administrations of items in 1999, but some slight movement in passing rates may be expected due to the differences in test forms used in the two testing periods.

The students who tested both spring and fall of 2000 exhibited gains as delineated in Table 5. The scores presented in that table are scale scores, converted scores that should allow comparison from test form to test form. On average, the students who were tested in both spring and fall exhibited growth from testing period to testing period. As demonstrated in

Figure 1

Anchorage School District
Passing Rates on HSGQE, Spring and Fall 2000

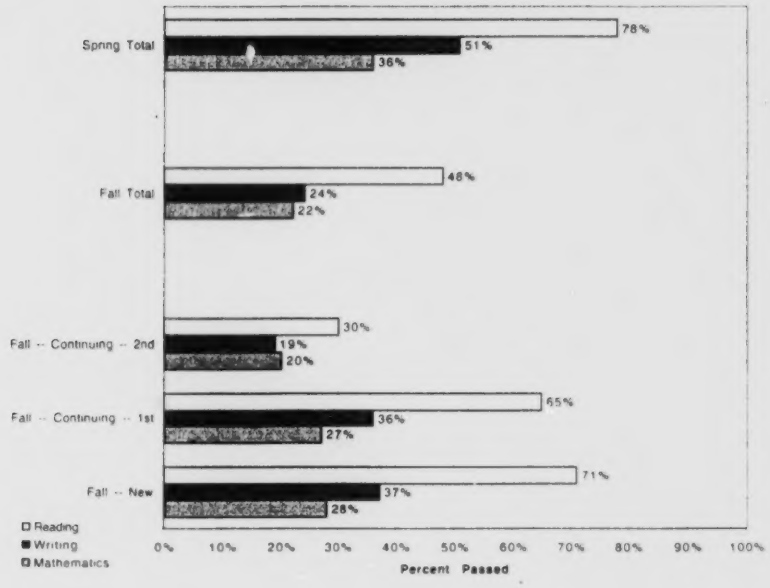


Table 5

Anchorage School District
Comparison of Average Scale Scores on the HSGQE
Students Who Tested Both Spring and Fall 2000

Test Area	Number Tested	Mean Scale Scores			Passing Score	Projected Average
		Spring	Fall	Gain		
Reading	440	247	262	15	305	307
Writing	1,119	292	311	19	356	368
Mathematics	1,468	308	326	18	383	380

Table 5, only a minority of students exhibited enough growth to actually attain a passing score, but the average gains were notable. The final two columns in Table 5 present the Passing Score required for each test and a Projected Average. The Projected Average was determined by adding three times the gain to the fall average for each test. That is, it

assumes that the non-passing students, who have three more testing period options before likely graduation, exhibited the same growth between testing periods as they exhibited between spring and fall 2000. If the growth held, the average scores for these students would be above the passing score in *Reading* and *Writing* but below the passing score in *Mathematics*. Clearly some additional interventions will be required to move the vast majority, rather than just the average, of these students from the Not Passed to the Passed category, allowing them to receive diplomas rather than Certificates of Attendance.

Benchmark Examination Results -- Overall

Alaska developed Benchmark tests for grades 3, 6, and 8 following the same general procedure established for the development of the HSGQE. Cut scores were established using the same CTB/McGraw-Hill bookmarking method though, of course, the individuals used to select items, review for bias, and set standards were not the same. Given the similarity of purpose for the tests as expressed in the technical manual and the method of development, one would expect some consistency between test areas, test levels, and student performance levels. Examining at the *HSGQE* and *Benchmark Tests* provides a context for considering the consistency of the expectations set for students in Alaska.

Coincident with the administration of the HSGQE, the *Benchmark Tests* were administered to students in grades 3, 6, and 8 in the spring of 2000. Better than 3,800 students sat for each of the examinations in grade 3, better then 3,850 students sat for each of the examinations in grade 6, and better than 3,530 sat for each of the examinations in grade 8. The performances of these students are summarized in Table 6.

Compared to state expectations, *Reading* was a strong area across the grades. From 74 percent to 88 percent of the tested students were rated as either Advanced or Proficient in each of the grades. The *Writing* performance, again compared to state expectations, was lowest in grade 3, with some 53 percent of the students rated as either Advanced or Proficient. *Writing* performances improved in the middle grades with 76 percent of the grade 6 students and 74 percent of the grade 8 students rated as Advanced or Proficient. *Mathematics* performances were strong in the elementary grades, with 67 percent of each of the grade 3 and grade 6 student contingents earning an Advanced or Proficient rating. At grade 8, however, only 43 percent of the students reached the Advanced or Proficient rating on the *Mathematics Test*.

Collapsing the four-point scale used in the *Benchmark Examinations* to a two-point scale allows the summarization of *Benchmark* and HSGQE results together. The collapsing of the *Benchmark* scale merges the two categories of "Advanced" and "Proficient" into the category of "Pass." The two *Benchmark* categories of "Not Proficient" and "Below Proficient" merge into the category "Not Pass." Using this conversion, Table 7 presents a summary of Spring 2000 performances on both the *Benchmark Tests* and the HSGQE. This same comparison is presented in Figure 2.

Table 6

Anchorage School District
Categorizations of Student Performances on *Benchmark Examinations*
Tests Administered in Spring 2000
Grade 3, 6, and 8 Students

Grade Test Area	Number Tested	Percent Classified as . . . Not Proficient	 Below Proficient	 Proficient	 Advanced
Grade 3					
Reading	3,806	11%	14%	58%	17%
Writing	3,808	10%	37%	49%	4%
Mathematics	3,812	11%	22%	39%	28%
Grade 6					
Reading	3,863	9%	17%	27%	47%
Writing	3,863	3%	21%	51%	25%
Mathematics	3,862	19%	14%	33%	34%
Grade 8					
Reading	3,539	6%	6%	18%	70%
Writing	3,542	2%	24%	50%	24%
Mathematics	3,531	14%	43%	34%	9%

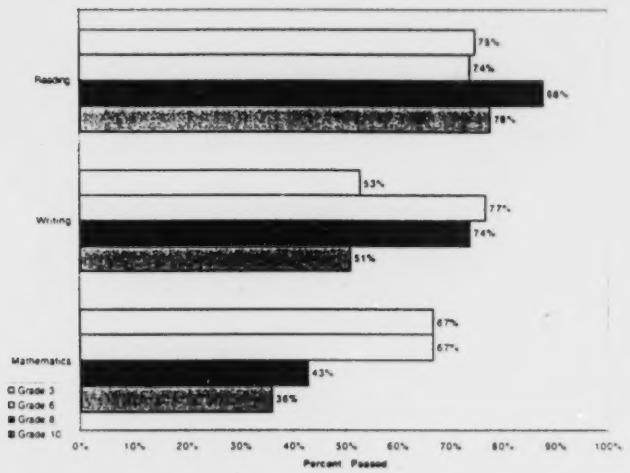
Table 7

Anchorage School District
Summary of Benchmark and HSGQE Results
Spring 2000

Grade	Test Area	Number Tested	Percent Pass
3	Reading	3,806	75%
3	Writing	3,808	53%
3	Mathematics	3,812	67%
6	Reading	3,863	74%
6	Writing	3,863	77%
6	Mathematics	3,862	67%
8	Reading	3,539	88%
8	Writing	3,542	74%
8	Mathematics	3,531	43%
10	Reading	3,047	78%
10	Writing	3,031	51%
10	Mathematics	3,006	36%

Figure 2

Anchorage School District
Passing Rates on Spring Benchmark and HSGQE



The summary of information presented in Table 7 and Figure 2 shows that, compared to state expectations, Anchorage *Reading* performances are strong across the grades. *Writing* performances are relatively low in grade 3, are strong in the two middle grades, and drop off at the high school level. *Mathematics* performances, compared to state expectations, are strongest in the elementary school grades, drop off in middle school, and drop even further at the high school level.

If the scores are valid representations of students meeting state standards, Anchorage teachers clearly have much work to do in the area of mathematics but it is curious that there is such a change in performance from level to level.

A study conducted by the Alaska Department of Education found that there were somewhat similar initial results in reading/language arts, writing, and mathematics tests across the nation[4].. The percent of students scoring above the state cut score in reading on high stakes tests is generally higher than the percent making the cut score in math. Table 8 presents the summary of initial results reported by the State of Alaska. Note that in some states English tests include reading, writing, and other language-arts-related knowledge and skills. These results, as well as separate Reading and Writing results are presented in Table 8. A review of Table 8 shows that the difference in passing rates between reading and mathematics in Alaska is striking, perhaps being comparable only to the pattern exhibited in Arizona.

These findings are consistent with the findings reported by Robert Linn (2000) in his recent

[4]Information on state-by-state performances distributed to the Alaska State Department of Education Technical Advisory Committee by Dr. Richard Smiley based on a survey of state testing directors.

Table 8

Initial Passing Rates on High Stakes Tests Across Various States
State of Alaska Review —Fall 2000

State	Passing Rates			
	English	Reading	Writing	Mathematics
Alabama	87%	94%	NA	89%
Alaska	NA	75%	48%	33%
Arizona	NA	61%	30%	12%
Delaware	NA	59%	37%	31%
Georgia	89%	NA	NA	82%
Indiana	54%	NA	NA	54%
Massachusetts	69%	NA	NA	50%
Minnesota	NA	<50%	87%	NA
Nevada	70%	NA	NA	<50%
New Jersey	NA	84%	93%	82%
New Mexico	88%	89%	NA	91%
Tennessee	78%	NA	NA	66%
Texas	NA	76%.	81%	57%

careful review of assessments and accountability in the United States, reported in the *Educational Researcher*.

> The fact that more students pass an English language arts test than pass a mathematics test, for example, could just as easily be due to differences in the rigor of the assessment or the standards set for different content areas as to fundamental differences in achievement (pp. 8-9).

The inferences that can be drawn about the validity of tests in any one place based on a national pattern of test performance are limited. The assessments contain different content, include different mixes of item formats, respond to different standards, and have different levels of expected performance corresponding to cut scores that were established by using different methods. There is no way to deduce from the scores that the students in one state are doing any better or worse than the students in any other state. But, the similarity is haunting.

A careful review of standards and instruction would be necessary to ascertain whether or not some gap between standards and the reality of instruction exists that might show up from a careful comparison between what is taught and what is learned.

HSGQE and Benchmark Results — Subgroups

A casual examination of the Alaska HSGQE scores shows that even though internal technical supports the assertion that the tests are fair for all groups, gross differences can be found between performance patterns for various groups, including boys and girls who have been sitting in close proximity in the same classrooms and schools.

In the discussions that follow, only the performances on the spring 2000 test administrations will be reviewed, since it included most of the students in the tested grades. The students tested in the fall with the HSGQE are not a representative group of the population as a whole, consisting of students who had previously failed the tests or students who had not yet taken the tests.

The demographic variables that will be used to examine the performances are gender, race/ethnicity, and home language. The families economic level will be examined in relationship to *Benchmark* performances. Both the HSGQE and Benchmark results will be examined in relation to the tested students identified need for special education services.

What is the impact of gender on performance on the Alaska tests?

Table 9 presents a gender comparison of passing rates on the *Benchmark Tests* and on the HSGQE. The figures in Table 9 show a gender difference related to performances on the *Benchmark Tests* and the HSGQE. Surprisingly, the apparent gender difference is not the much discussed mathematics differential, but rather a language arts differential in favor of female students. Female students tend to pass the *Reading* and *Writing Tests* at a higher rate (much higher on the *Writing Test*) than do male students. The passing rates on the *Mathematics Tests* are similar for males and females.

The performance differences between gender groups on the tests raise questions concerning instructional practice, students attitudes toward education and the amount of effort the students put into the tests themselves.

Certainly teaching is a female dominated profession. There may be a subtle gender based teacher-student interactions that favor female students over male students in the language arts area. The selections of reading and writing topics may be slanted toward a female interests to the detriment, at least in terms of interest, of some male students. Perhaps boys, as a group, are less interested in reading and writing and less willing to practice these areas than girls. Many hypotheses could be postulated, but specific answers will not be found in the test results. The test results raise the questions. Answers can only be found by linking pedagogy, curriculum, and student attitudes to the results.

The gender differences in performance also raise questions about the tests that have not been answered in the technical analysis conducted by CTB/McGraw-Hill. Are the apparent differences real, or are they artifacts of some interaction of the topics and the response formats on the reading and writing tests? Can the analysis of open-ended scoring go beyond the reports of inter-rater reliability to see if the scorers are reacting, perhaps unknowingly, to

Table 9

Anchorage School District
Passing Rates on Spring 2000
Benchmark Tests and HSGQE
Results Aggregated by Gender Group

Test Area Grade Level	Female Students Number Tested	Female Students Percent Passed	Male Students Number Tested	Male Students Percent Passed	All Students Number Tested	All Students Percent Passed
Reading						
Grade 3	1,884	80%	1,922	70%	3,806	75%
Grade 6	1,870	77%	1,993	72%	3,863	74%
Grade 8	1,736	92%	1,803	84%	3,539	88%
Grade 10	1,523	84%	1,524	73%	3,047	78%
Writing						
Grade 3	1,885	62%	1,923	45%	3,808	53%
Grade 6	1,870	82%	1,993	72%	3,863	77%
Grade 8	1,739	83%	1,806	66%	3,542	74%
Grade 10	1,514	61%	1,517	40%	3,031	51%
Mathematics						
Grade 3	1,888	69%	1,924	64%	3,812	67%
Grade 6	1,875	67%	1,987	67%	3,862	67%
Grade 8	1,730	43%	1,801	43%	3,531	43%
Grade 10	1,507	35%	1,499	37%	3,006	36%

handwriting or male patterns of expression? Do raters make assumptions based on their beliefs about the gender of student authors? These questions need to be examined by the State of Alaska in conjunction with its contractor in validity studies that can possibly ascertain that no gender bias in schooling or testing is reflected in the pass and fail rates.

Does racial/ethnic membership affect performance?

A second demographic variable is examined in Table 10. Here, passing rates on the spring tests are reviewed, based on the racial-ethnic background of the tested students. There are clearly differences in the passing rates based on racial-ethnic backgrounds, with the majority group, Caucasian Heritage, having the highest passing rate on every test at each of the tested grades. As with the gender differences, the documented racial-ethnic group differences raise questions about instructional practices and materials, about attitudes toward education, and about the tests themselves. Also, as with the gender issue, the answers to the questions are not to be found within the statistics presented here, but further study and review could be conducted to examine opportunity to learn and other issues that may differentially affect the groups.

A further refinement of the gender based and racial-ethnic based differences is presented in

Table 10

Anchorage School District
Passing Rates on Spring 2000
Benchmark Tests and HSGQE
Results Aggregated by Racial-Ethnic Group

	Students of . . .																	
	Alaskan Native Heritage		American Indian Heritage		Asian Heritage		African Heritage		Filipino Heritage		Hispanic Heritage		Caucasian Heritage		Other Heritage		All Heritages	
Test Area Grade	Num Tstd	Pass Rate	Num Tstd	Pass Rate	Num Tstd	Pass Rate	NumPass Tstd	Rate	Num Tstd	Pass Rate	Num Tstd	Pass Rate	Num Tstd	Pass Rate	Num Tstd	Pass Rate	Num Tstd	Pass Rate
Reading																		
Gr. 3	466	56%	47	66%	254	63%	343	63%	94	66%	216	63%	2,379	84%	7	43%	3,806	75%
Gr. 6	414	56%	46	65%	256	62%	352	56%	102	74%	186	59%	2,499	83%	8	50%	3,863	74%
Gr. 8	326	78%	36	89%	239	74%	300	77%	94	86%	167	79%	2,372	93%	5	80%	3,539	88%
Gr. 10	249	59%	40	83%	218	59%	252	59%	73	68%	162	63%	2,041	87%	12	42%	3,047	78%
Writing																		
Gr. 3	467	29%	48	40%	256	49%	345	40%	93	51%	214	44%	2,378	62%	7	43%	3,808	53%
Gr. 6	414	56%	46	59%	256	66%	351	60%	102	84%	187	64%	2,499	84%	8	50%	3,863	77%
Gr. 8	328	52%	36	72%	238	62%	298	61%	94	68%	170	61%	2,373	82%	5	80%	3,542	74%
Gr. 10	248	33%	42	36%	215	37%	248	26%	73	44%	162	34%	2,032	59%	11	18%	3,031	51%
Mathematics																		
Gr. 3	464	48%	48	60%	258	59%	344	51%	94	57%	217	58%	2,380	75%	7	43%	3,812	67%
Gr. 6	414	49%	46	52%	255	58%	354	42%	102	62%	186	49%	2,497	77%	8	38%	3,862	67%
Gr. 8	322	26%	36	31%	238	38%	298	17%	94	28%	167	25%	2,371	51%	5	20%	3,531	43%
Gr. 10	246	18%	40	28%	208	29%	246	13%	72	13%	160	21%	2,025	44%	9	11%	3,006	36%

Table 11. In this table, the passing rates on the tests are presented for gender groups within the racial-ethnic groups. Figures 3, 4, and 5 present graphic depictions of passing rates for gender-ethnic groups on the *Reading*, *Writing*, and *Mathematics Tests* on the Spring 2000 HSGQE. It appears that in some cases the gender differences may be accentuated by membership in some minority groups.

When examined by racial-ethnic group, the gender differences that had been noted for the overall group in the language arts area hold up. That is, there did not seem to be a major racial-ethnic versus gender interaction. Female students outperformed male students on the *Reading* and *Writing* tests, regardless of racial-ethnic background. Also, as with the overall group, little difference in the *Mathematics* area was observed between genders across the racial-ethnic groups. Also, Caucasian males tended to show higher passing rates than did males from other racial-ethnic groups, and Caucasian females exhibited higher passing rates than did females from other racial-ethnic groups. Additional technical analysis of the tests is needed at the level of individual standards to see if there is an interaction between standards and instruction in schools that have high minority membership.

Table 11

Passing Rates on Spring 2000 ***Benchmark Tests*** and HSGQE Results by Combined Racial-Ethnic and Gender Groupings

Test Area / Grade	Ak. Nat. Fem.	Ak. Nat. Male	Am. Ind. Fem.	Am. Ind. Male	Asian Fem.	Asian Male	African Fem.	African Male	Filipino Fem.	Filipino Male	Hispanic Fem.	Hispanic Male	Caucasian Fem.	Caucasian Male	Other Fem.	Other Male	All Fem.	All Male
Reading																		
Gr. 3	62%	49%	73%	60%	68%	59%	74%	51%	73%	58%	64%	62%	87%	80%	33%	50%	80%	70%
Gr. 6	60%	51%	61%	70%	69%	56%	65%	48%	80%	65%	62%	57%	84%	82%	80%	0%	77%	72%
Gr. 8	86%	71%	100%	76%	84%	66%	87%	67%	90%	81%	84%	75%	95%	91%	80%	--	92%	84%
Gr. 10	64%	54%	80%	85%	64%	55%	66%	49%	77%	59%	69%	57%	92%	82%	60%	29%	84%	73%
Writing																		
Gr. 3	40%	19%	41%	38%	59%	40%	52%	27%	57%	43%	47%	41%	70%	53%	33%	50%	62%	45%
Gr. 6	61%	49%	57%	61%	76%	59%	74%	48%	84%	85%	71%	57%	88%	81%	60%	33%	82%	72%
Gr. 8	67%	38%	84%	59%	73%	52%	75%	47%	79%	55%	70%	54%	89%	74%	80%	--	83%	66%
Gr. 10	42%	25%	43%	29%	45%	30%	34%	16%	53%	34%	39%	29%	71%	47%	50%	0%	61%	40%
Mathematics																		
Gr. 3	52%	45%	73%	50%	62%	56%	58%	43%	63%	51%	58%	57%	77%	73%	33%	50%	69%	64%
Gr. 6	46%	52%	39%	65%	63%	54%	46%	39%	64%	59%	52%	47%	76%	78%	40%	33%	67%	67%
Gr. 8	26%	25%	32%	29%	39%	38%	16%	18%	29%	26%	22%	27%	51%	51%	20%	--	43%	43%
Gr. 10	18%	18%	29%	26%	30%	29%	13%	13%	10%	15%	20%	22%	43%	45%	0%	14%	35%	37%

The passing rates for some of the racial-ethnic-gender groups on the HSGQE parts were extremely low. Specifically, only 16 percent of the African males passed the *Writing Test*. In the *Mathematics* area, both African males and African females passed at a rate of 13 percent. Eighteen (18) percent of both the male and female Alaska Native students passed the *Mathematics Test*. Only 10 percent of the female Filipino students and 15 percent of the male Filipino students were successful on the Spring 2000 administration of the *Mathematics Test*.

How does English Language proficiency affect performance?

Another look at performances by demographic group is provided in Table 12 and Figure 6. This table and figure present performances based on the English Language Proficiency of the tested students. Many students in Anchorage come from homes where a language other than English is the primary language. For the current year, over 80 different languages are represented within the Anchorage School District.

Current Alaska regulations require that all students pass English language reading, writing, and mathematics elements of the HSGQE. Some Anchorage students speak little or no English; some students are bilingual or multilingual, speaking both English and one or more other languages; some students speak primarily English but may have their language development influenced by another language spoken in their homes; and some students speak only English, without influence from another language.

Figure 3

Anchorage School District
Passing Rates on the Spring 2000 ***Reading Test*** of the HSGQE

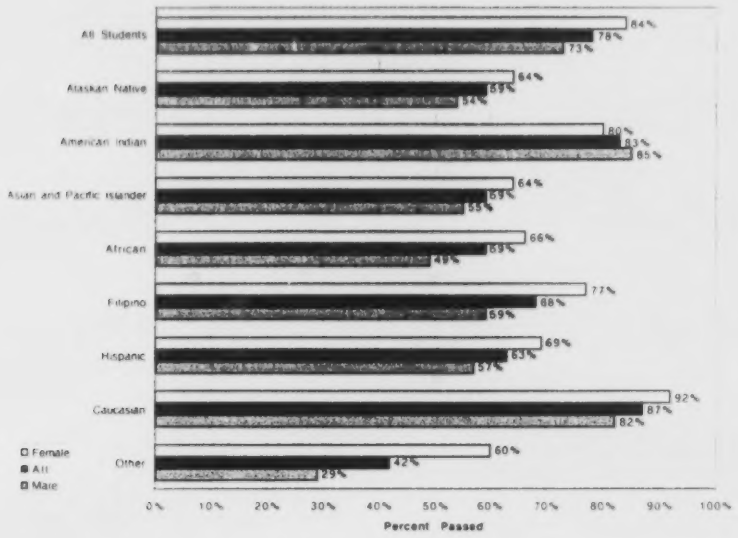


Figure 4

Anchorage School District
Passing Rates on the Spring 2000 *Writing Test* of the HSGQE

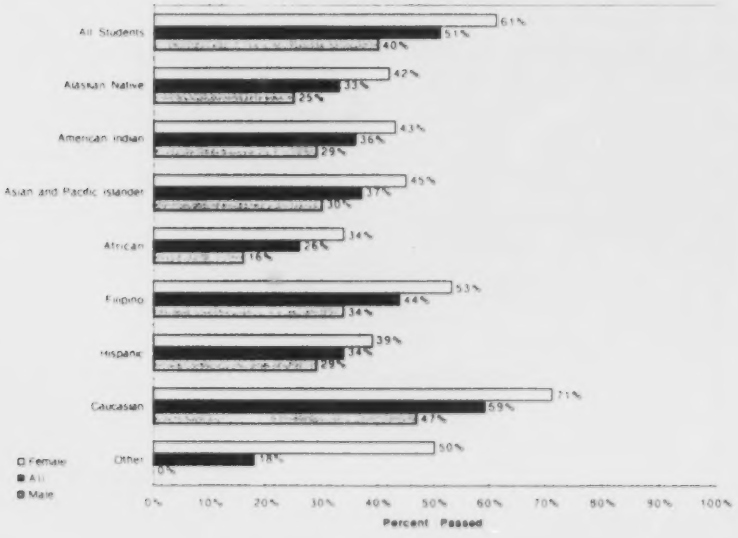
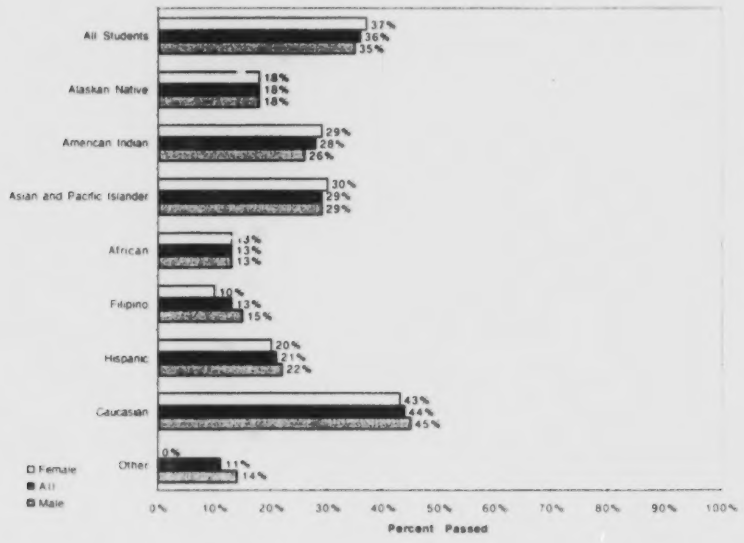


Figure 5

Anchorage School District
Passing Rates on the Spring 2000 *Mathematics Test* of the HSGQE



Performances on the *Benchmark* and HSGQE based on these groupings are presented in Table 12. Figure 6 provides a graphic depiction of the performances on the HSGQE broken down by language groups. As one would expect, the information presented in Table 12 and depicted in Figure 6 shows that students scores tend to improve with improved English proficiency. This was true in all three tested areas, including *Mathematics*, at all of the tested grade levels.

While tests are untimed and some provisions for assistance of bilingual students in some areas of the test, speakers of languages other than English are given no opportunity to test in their own language. Able students whose primary language is other than English must develop their English proficiency to a level which makes them capable of passing the HSGQE if they are to obtain a high school diploma from a public school in Alaska. Given the statistics regarding performances on the tests administered in spring 2000, this may be an extremely difficult, if not impossible task, for some students.

Does participation in special education affect performance?

Another variable that is strongly related to performance on the *Benchmark Tests* and on the HSGQE is eligibility for Special Education Services. Table 13 presents results on the tests from spring 2000, broken down by participation in special education. The students receiving special education services have been classified into two groups based on their identified exceptionality. Group 1 consists of students who have been identified as Orthopedically

Table 12

Anchorage School District

Passing Rates on Spring 2000 ***Benchmark Tests*** and HSGQE
Results by English Language Speaking Grouping

	English Language Proficiency									
	Mostly or Totally Non-English (Old Lau A & B)		Speakers of English and Another Language (Old Lau C & D)		English Speaker/Other Language Interference (Old Lau E)		English Speaker Only		All Students	
Grade Area	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Grade 3										
Reading	353	43%	156	81%	41	73%	3,256	78%	3,806	75%
Writing	352	28%	155	61%	41	61%	3,260	56%	3,808	53%
Mathematics	356	41%	156	74%	41	63%	3,259	69%	3,812	67%
Grade 6										
Reading	274	37%	210	77%	50	74%	3,329	77%	3,863	74%
Writing	275	41%	210	81%	50	68%	3,328	79%	3,863	77%
Mathematics	273	27%	210	69%	49	55%	3,330	70%	3,862	67%
Grade 8										
Reading	246	63%	181	88%	64	83%	3,048	90%	3,539	88%
Writing	249	43%	183	72%	64	70%	3,046	77%	3,542	74%
Mathematics	246	17%	181	36%	63	46%	3,041	45%	3,531	43%
Grade 10										
Reading	175	39%	193	59%	64	77%	2,615	82%	3,047	78%
Writing	176	18%	193	36%	65	43%	2,597	54%	3,031	51%
Mathematics	175	18%	185	19%	64	25%	2,582	39%	3,006	36%

Figure 6

Anchorage School District
Passing Rates for English Proficiency Groups on the Spring 2000 HSGQE

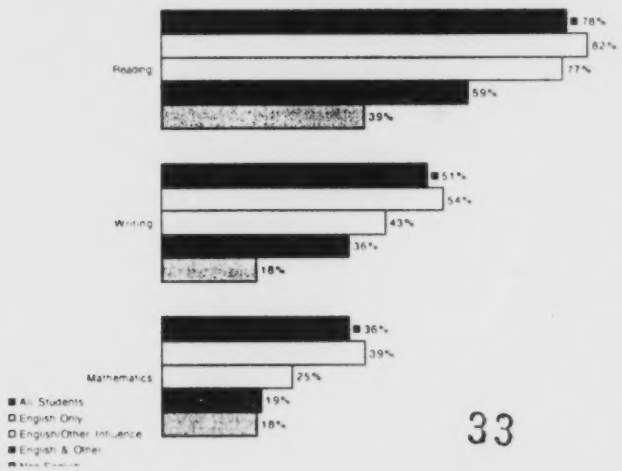


Table 13

Anchorage School District
Passing Rates on Benchmark Tests and HSGQE, Spring 2000 by
Special Education Participation

Grade Area	Special Education (Group 1) * Number	Percent	Special Education (Group 2) ** Number	Percent	Not Special Education Number	Percent	All Students Number	Percent
Grade 3								
Reading	244	60%	464	33%	3,108	82%	3,806	75%
Writing	243	39%	455	10%	3,110	61%	3,808	53%
Mathematics	246	54%	453	28%	3,113	73%	3,812	67%
Grade 6								
Reading	102	52%	539	32%	3,222	82%	3,863	74%
Writing	101	50%	542	30%	3,220	85%	3,863	77%
Mathematics	102	43%	543	26%	3,217	75%	3,862	67%
Grade 8								
Reading	52	56%	408	53%	3,079	93%	3,549	88%
Writing	53	38%	413	21%	3,076	82%	3,542	74%
Mathematics	51	20%	410	10%	3,070	48%	3,531	43%
Grade 10								
Reading	25	52%	334	39%	2,688	84%	3,047	78%
Writing	24	25%	328	6%	2,679	56%	3,031	51%
Mathematics	23	9%	323	5%	2,660	40%	3,006	36%

* Group 1: Orthopedically Handicapped, Speech Impaired, Visually Impaired, Health Impaired, Hard of Hearing, Deaf, and Deaf Blind.

** Group 2: Mentally Retarded, Learning Disabled, Emotionally Disturbed, Multihandicapped, Developmental Delay, Autism or Traumatic Brain Injury.

Handicapped, Speech Impaired, Visually Impaired, Health Impaired, Hard of Hearing, Deaf, or Deaf/Blind. This group exhibits primarily, though not solely, physical exceptionalities.

Group 2 in Table 13 consists of students who have been identified as Mentally Retarded, Learning Disabled, Emotionally Disturbed, Multihandicapped, Developmentally Delayed, Autistic, or having a Traumatic Brain Injury. These students have either cognitive processing or emotional exceptionalities. The final group in the table consists of students who have not been identified with any of the exceptionalities listed for group 1 or group 2.

Substantial differences are noted in the passing rates among the three groups identified in Table 13. The students without identified exceptionalities exhibited much higher success rates on all tests at all grade levels than did either group of students with exceptionalities. Within the special education groups, students in Group 1 (physical exceptionalities) succeeded at a higher rate than did students in Group 2 (cognitive and emotional exceptionalities). Without some way to exhibit proficiency aside from the HSGQE, many of

the students with identified special education exceptionalities may have an extremely difficult, if not impossible, time attaining a high school diploma from a public high school in Alaska.

Does family income affect performance?

Unfortunately, the Anchorage data sets do not allow a complete examination of the relationship between family income and performance on the HSGQE. Data on student eligibility for free and reduced-price lunch is only consistently collected for students enrolled in grades K-8. Many students do not continue in the program in grades 7-8 where Anchorage students generally are brought together in large middle schools representing many neighborhood elementary schools. No information is collected on eligibility for free and reduced-price lunch from high school students though some students are identified to the school district by the State of Alaska.

As a final look at the relationship of background variables and performance on the *Benchmark Tests*, Figure 7 and Table 14 present comparisons of ratings in grades 3, 6, and 8 between Relatively Low and Relatively High economic groups. Figure 7 looks at the Passing Rate , the collapsed two point scale. Table 14 presents a more expanded view, looking at the four-category rating actually applied to the students performances.

Figure 7

Anchorage School District
Passing Rates on the 2000 ***Benchmark Tests***
Presented by Grade and Economic Group

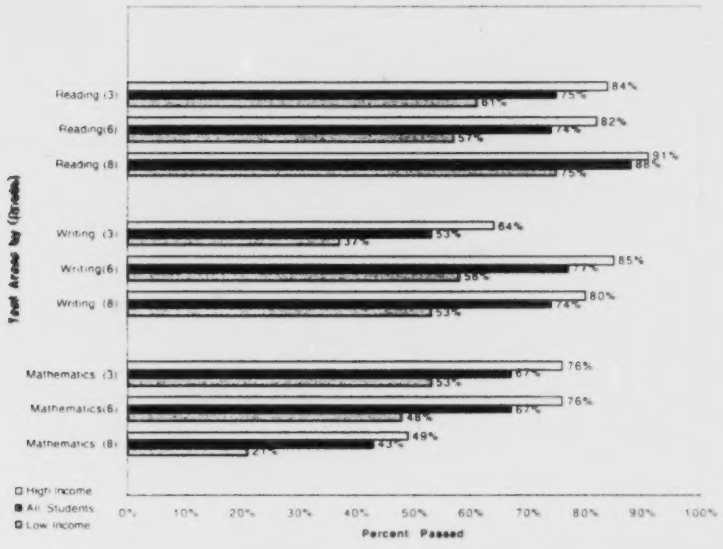


Table 14

Anchorage School District
Benchmark Tests Performances from Spring 2000 by
Economic Grouping of Students

Grade Test Area Economic Group	Number Tested	Percent Classified as . . . Not Proficient	Below Proficient	Proficient	Advanced
Grade 3					
Reading					
Low Group	1,480	19%	20%	52%	9%
High Group	2,326	6%	10%	61%	23%
All Students	3,806	11%	14%	58%	17%
Writing					
Low Group	1,484	17%	46%	35%	2%
High Group	2,324	5%	32%	58%	6%
All Students	3,808	10%	37%	49%	4%
Mathematics					
Low Group	1,486	18%	29%	37%	16%
High Group	2,326	6%	18%	39%	36%
All Students	3,812	11%	22%	39%	28%
Grade 6					
Reading					
Low Group	1,190	17%	26%	30%	27%
High Group	2,673	5%	13%	26%	56%
All Students	3,863	9%	17%	27%	47%
Writing					
Low Group	1,189	6%	35%	48%	11%
High Group	2,674	1%	14%	53%	32%
All Students	3,863	3%	21%	51%	25%
Mathematics					
Low Group	1,188	36%	16%	31%	17%
High Group	2,674	12%	13%	34%	42%
All Students	3,862	19%	14%	33%	34%
Grade 8					
Reading					
Low Group	737	14%	11%	25%	50%
High Group	2,802	4%	5%	16%	76%
All Students	3,539	6%	6%	18%	70%
Writing					
Low Group	735	5%	42%	47%	7%
High Group	2,807	1%	19%	51%	29%
All Students	3,542	2%	24%	50%	24%
Mathematics					
Low Group	726	29%	50%	20%	2%
High Group	2,805	11%	41%	37%	12%
All Students	3,531	14%	43%	34%	9%

The Relatively Low economic group is composed of students who were identified by the State as living in families that receive aid to dependent children or families that qualified for the district s subsidized lunch program (either free or reduced price lunches). The

Relatively High group is composed of those students who do not meet the criteria for the low group. HSGQE results are not included in this review because the district does not offer a subsidized lunch program at the high school level and therefore does not have a good indicator of economic status for students at the high school level. The utility of the participation in the lunch program may even be questioned at the elementary and middle school levels.

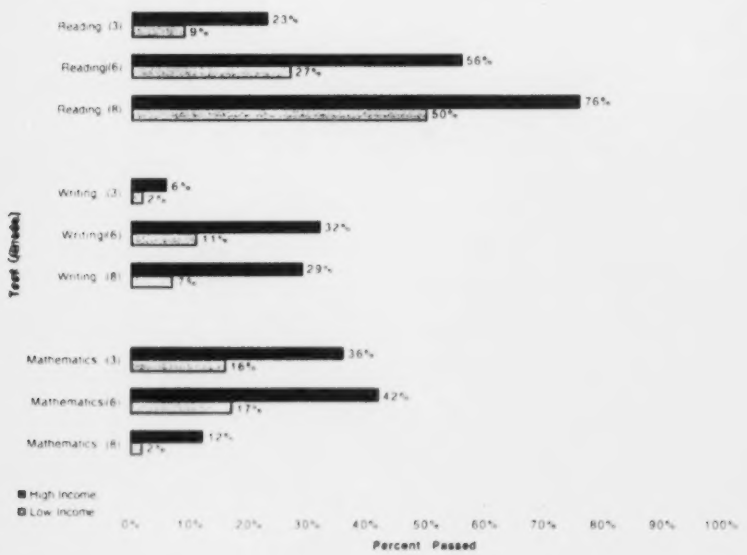
Moving across the *Benchmark* grades of 3, 6, and 8, the numbers of tested students classified as Relatively Low drops from about 39 percent in grade 3 to about 31 percent in grade 6 to about 21 percent in grade 8. This indicates either that family income is somehow associated with the age of students or, more likely, that the voluntary participation in the subsidized lunch program drops off as students move through the grades.

As with the other demographic background variables, substantive differences can be seen between the performances of the student groups based on income level. Students from more affluent families tend to have more success on the Benchmark Tests than do students from less affluent families. This is apparent in a review of Figure 7 and Table 14.

The differences in performance between low income and high income students may be even more apparent when only the Advanced category is examined. Figure 8 presents a graphic depiction of that comparison.

Figure 8

Anchorage School District
Percent of Students in Income Categories Rated Advanced on
Spring 2000 ***Benchmark Tests***



The details in Figure 8 show that in both the *Writing* and *Mathematics* areas, two to three times more high income students than low income students were rated Advanced. With regard to *Reading*, the portion of high income students rated as Advanced was twice that of low income students. At grade 8, half the low income students were judged to be Advanced in *Reading* while three-quarters of the high income students were so judged. Clearly, students from more affluent backgrounds enjoy advantages which their less affluent peers do not share when it comes to *Benchmark Tests* scores.

Does the school that a student attends affect performance?

Many parents and community members are interested in how well children from particular schools perform. In fact, there are notable differences in the passing rates among the schools that make up the Anchorage School District. A detailed presentation of state test results on a school-by-school basis can be found in Appendices A through E. Appendices A through C present the grade 3, 6, and 8 *Benchmark Test* results from spring 2000. Appendix D presents the HSGQE results from spring 2000 and Appendix E presents HSGQE results for fall 2000. Even casual review of the appendices demonstrates that there is a great deal of the variability in passing rates among the schools. Much of this variability reflects the demographic differences in the populations being served at specific schools.

Table 15 presents the results of a number of "linear regression" analyses designed to examine the relationships among the various demographic variables and the passing rate at schools. Basically, these analyses attempted to predict the passing rates at schools by using the information about the demographics of the population served by the schools. The specific predictor variables used in these analyses were: a) Portion of School's Population that is Minority, b) Portion of School's Population that is Low Income, c) Portion of School's Population that is Limited English Speaking (LES), and d) Portion of School's Population that is Identified Special Education.

The information presented in Table 15 presents the "prediction" equations that were developed in terms of the various "multipliers" and the constant. For third grade *Reading*, using "MIN" to represent the portion of the school's population that was minority, "LOW" to represent the portion of the school's population that was from low income families, "LES" to represent the portion of the school's population that was limited English speaking, "SPC" to represent the portion of the school's population that was identified special education, and the asterisk symbol, *, to represent the multiplication operation, the prediction equation would be:

Predicted Passing Rate = -0.34770*MIN – 0.20697*LOW –0.24217*LES –-0.20294*SPC +1.02244

The equations for the other grade and test combinations would be constructed in a similar fashion.

The value 0.87433 under the heading "Multiple Correlation" presents an estimate of the strength of the relationship between the values predicted using the above equation and the actual passing rates across the schools. This correlation could range from 0 to 1, with 0

Table 15

Anchorage School District
Relationship of Demographics of Schools to Passing Rates at Schools
Benchmark Tests and HSGQE
Spring 2000

Grade/ Test Area	Multiplier: Portion Minority	Portion Low Income	Portion LES	Portion Spec. Ed.	Constant	Multiple Correlation	Percent of Variance Explained
Grade 3							
Reading	-0.34770	-0.20697	-0.24217	-0.20094	1.02244	0.87433	76.4%
Writing	-0.35231	-0.33900	0.08788	-0.15804	0.79240	0.72820	53.0%
Mathematics	-0.29245	-0.32747	0.04645	0.07861	0.86978	0.81215	66.0%
Grade 6							
Reading	-0.32928	-0.24668	-0.11658	-0.21386	0.99704	0.82264	67.7%
Writing	-0.39367	-0.22540	-0.04494	-0.37895	1.06297	0.81661	66.7%
Mathematics	-0.25416	-0.27676	-0.28668	-0.20652	0.92592	0.80380	64.6%
Grade 8							
Reading	-1.21074	-0.31086	3.44467	-0.61199	1.22585	0.46866	22.0%
Writing	-1.19341	-0.63829	3.38712	-0.50728	1.14878	0.65139	42.4%
Mathematics	-0.96895	-0.65876	2.42807	-0.09623	0.74838	0.74566	55.6%
Grade 10							
Reading	-1.06311	0.07292	1.79929	-1.47493	1.17226	0.84127	70.8%
Writing	-0.81919	-0.40023	0.90073	-0.31421	0.81215	0.70095	49.1%
Mathematics	-0.94544	-0.41048	0.93187	0.23187	0.73553	0.74338	55.3%

representing absolutely no relationship and 1 representing absolute perfect relationship. The value of 0.87433 for third grade *Reading* is quite strong, indicating that there is a strong relationship between the demographic composition of the schools and the passing rates at the schools. This is further demonstrated by the value of 76.4 percent under the column "Percent of Variance Explained." This figure indicates that the demographic variables used in the analysis account for about three-fourths of the differences among schools on the *Reading Test* at grade 3.

The regression analysis presented in Table 15 indicates that, for the third grade *Reading Test*, 76.4 percent of that variation among passing rates for schools can be explained by the demographic composition of the schools. The remaining 23.6 percent of the variance cannot be explained by the demographic make-up of the schools. Other factors such as teacher quality, parental involvement, school program, volunteers in schools, business involvement, or other non-identified variables may account for some or all of the remaining 23.6 percent of unexplained variance in passing rate on the *Reading Test* at grade three.

Across the tests and across the grades, the "Percent of Explained Variance" ranges from 22.0 percent to 76.4 percent. The relationship is strongest in the elementary schools, followed by the high schools, and then the middle schools. It may be that the populations served in the elementary schools are more homogeneous than those served in the middle or high schools, and that results in a stronger relationship between demographic variables and academic success at a given school.

At all levels, it is apparent that performances on the state tests at schools reflect both the communities the schools serve and other non-demographic factors that are not identified in this review. Moving forward to reduce the influence of demographic factors will enhance the educational opportunity for all and provide for true equity in education.

Anchorage administrators have already turned to principals and teachers to raise levels of performance. The emphasis is on gap reduction for those groups and individuals who do less well on the tests. Individual Anchorage schools have been asked to provide plans on how they will improve performance and promote equity for all students.

The State of Alaska has not provided information on how much of a difference makes a difference when group or district averages are examined. There is no information provided on what individual schools, given the makeup of the student body, should expect as a test score. Guidance is needed for teachers and schools and communities to help understand the implications of score differences when there are differences in first language, socioeconomic status, and cultural background. (See Baker & Linn, 2000).

What can be learned from examination of Anchorage students on the Alaska Benchmark tests and HSGQE relative to their performance on the CAT test?

The testing of many students on both the State examinations and *the California Achievement Tests (CAT)* provides a unique opportunity for considering the consistency in student performance. Anchorage students in grades 3, 6, and 8, along with their peers across the state, sat for the *Benchmark Examinations* in early March of 2000. Sophomores in Anchorage, along with their peers across the state, took for the HSGQE. Most of these same students in Anchorage also sat for the *California Achievement Tests* (*CAT*), Fifth Edition, Survey Battery, Form A in late March. The coincidence of these two test administrations allows an analysis of the *Benchmark* and HSGQE results vis- -vis the *CAT* to see how well the tests correlate and to identify the CAT percentile ranks that correspond to State *Benchmark Tests* and HSGQE cut scores.

The strong relationship between performances on *CAT* and the *Benchmark Tests*/HSGQE scores is obvious from the statistics presented in Table 16. This table presents Correlation Coefficients comparing performances on the *Benchmark Tests*/HSGQE with the performances on the *CAT*. Based on the correlations, a student who scores well on one test would have been expected to score well on the other test.

The correlation coefficients presented in Table 16, for grades 3, 6, and 8, reflect the relationship of the students Scale Scores (SS) on the *Benchmark Tests* and their Normal Curve Equivalent (NCE) scores on the *CAT*. Correlation coefficients were calculated to

Table 16

Anchorage School District
Correlation Coefficients
California Achievement Tests (NCE Scores) and
State of Alaska Benchmark and High School Graduation Qualifying Examinations (Scale Scores)
Spring 2000 Administration

Grade Level	Correlation between . . . CAT Total Reading & Alaska Reading (Benchmark or HSGQE)	CAT Total Lang. Arts & Alaska Writing (Benchmarks or HSGQE)	CAT Total Math & Alaska Mathematics (Benchmark or HSGQE)
3	0.8163	0.8216	0.7823
6	0.7843	0.8045	0.8314
8	0.7753	0.7813	0.8416
10	0.7813	0.7929	0.8300

examine the relationship of (1) the *Benchmark Reading Test* and the *CAT Total Reading* scores, (2) the *Benchmark Writing Test* and the *CAT Total Language Arts* scores, and (3) the *Benchmark Mathematics Test* and *the CAT Total Mathematics* scores.

At grade 10, the correlations were computed between the three *CAT* scores and the corresponding parts of the *HSGQE*: (1) *Total Reading* on the *CAT* versus *Reading* on the *HSGQE*; (2) *Total Language Arts* on the *CAT* versus *Writing* on the HSGQE; and (3) *Total Mathematics* on the *CAT* versus *Mathematics* on the HSGQE.

The values presented in Table 16 indicate there is a strong, direct relationship between performances on the *Benchmark Tests*/HSGQE and performances on the *CAT*. Students with the higher scores on one measure tended to be among those with the higher scores on the other measure. Students who had low scores on one measure tended to obtain low scores on the other measure. This relationship is not causal: performance on one test did not cause performance on the other; rather, both performances reflect the students overall and discipline specific academic development.

Given the strength of the relationships demonstrated by the correlation coefficients presented in Table 16, it is possible to probe the relationships further. Regression analyses were conducted and are summarized in Table 17. In these analyses, performances on the *Benchmark Tests*/HSGQE were the predicted variables and performances on the *CAT* sub-tests were the predictor variables.

For grade 3, using the information from Table 17 and using NCER to represent the Normal Curve Equivalent Score on the Total Reading portion of the *CAT*, NCEW to represent the

Table 17

Anchorage School District
Regression Analyses: Predicting
Benchmark Tests or HSGQE Performances
From *CAT* Performances
Spring 2000

Grade Test Area	Multiplier for CAT NCE	Constant	Correlation	Percent of Variance Explained
Grade 3				
Reading	2.83922	199.58656	.81628	67%
Writing	2.74936	213.56567	.82159	68%
Mathematics	2.79435	198.35775	.78234	61%
Grade 6				
Reading	2.86236	206.31866	.78430	62%
Writing	2.89332	192.52714	.80454	65%
Mathematics	2.89816	186.10372	.83139	69%
Grade 8				
Reading	2.79765	199.25953	.77532	60%
Writing	2.89498	205.62966	.78131	61%
Mathematics	3.36624	167.52182	.84164	71%
Grade 10				
Reading	2.58864	212.90772	.78127	61%
Writing	2.69541	207.05576	.79285	63%
Mathematics	3.16877	166.26164	.83000	69%

Normal Curve Equivalent Score on the Total Language Arts portion of the *CAT*, NCEM to represent the Normal Curve Equivalent Score on the Total Mathematics portion of the *CAT*, and using the asterisk (*) to represent the operation of multiplication, the predicted *Benchmark* Scale Scores for s student, based on *CAT* scores would be:

Predicted Reading Scale Score = 2.83922* NCER + 199.58656
Predicted Writing Scale Score = 2.74936* NCEW + 213.56567
Predicted Mathematics Scale Score = 2.79435 * NCEM + 198.35775

The equations for grades 6, 8, and 10 would be similarly interpreted from the information in Table 17. The correlation coefficients presented in Table 17 are the same at those in Table 16. The percent of variance accounted for indicates that the *CAT* performances of students can be used to explain from 60 percent to 71 percent of the variability in students scores on the *Benchmark Tests* and HSGQE. Other individual student factors, program factors, and unidentified factors may explain the remaining variability in students *Benchmark Test*/HSGQE performances.

The equations based on the entries in Table 17 can be solved to find the levels of performance on the *California Achievement Test* that correspond to the minimum passing scores in the various areas on the *Benchmark Tests* and on the HSGQE. The results of those calculations are presented in Table 18. This table presents the minimum passing scores on the *Benchmark Tests* and HSGQE as scale scores. For the *Benchmark Tests* the scores presented as scale scores in Table 18 are the lowest scores a student could obtain in the tested areas at the specified grades and still be judged Proficient. On the HSGQE, the entries correspond to the minimum passing scores.

Entering the scale score values into the appropriate equations allowed the calculation of the corresponding *CAT* Normal Curve Equivalent or NCE scores. Finally, the Normal Curve Equivalent scores can be converted to national percentile rank scores for ease of interpretation. The percentile rank scores indicate the portion of the national population, based on the publisher s norming group, that would have scored at or below the level of performance required for passing the specified Alaska examination. That is, the percentile

Table 18

Anchorage School District
Correspondence between Passing Cut Points on the
Benchmark Tests/HSGQE and
California Achievement Test Scores
Spring 2000 Data

Grade Area	Cut Score Scale Score	CAT NCE Score	CAT Percentile
Grade 3			
Reading	310	38.89	30
Writing	352	50.35	51
Mathematics	322	44.25	39
Grade 6			
Reading	311	36.57	26
Writing	300	37.15	27
Mathematics	329	49.31	49
Grade 8			
Reading	271	25.64	12
Writing	316	38.12	29
Mathematics	376	61.93	72
Grade 10			
Reading	305	35.58	25
Writing	356	55.26	60
Mathematics	383	68.40	81

rank scores presented in Table 18 indicate the percent of students in the general national population who likely would not have passed the various Alaska tests if they had been tested along with the Alaska students.

The percentile rank scores vary considerably across the grades and tested areas. They clearly indicate a difference in the general difficulty level of the state examinations. At the high school level, some 75 percent of the national population of sophomores would have been expected to pass the *Reading* portion of the HSGQE, but only 19 percent of the national population of sophomores would have been expected to pass the *Mathematics* portion of the HSGQE.

A detailed comparison of Anchorage s actual passing rate compared to the expected national passing rate is presented in Figure 9. This presentation indicates that the local passing rate exceeded the corresponding national expectation at all grades in *Writing* and *Mathematics*, and in *Reading* at grades 3 and 10. The local passing rate in *Reading* exactly matched the national expectations in grades 6 and 8. When absolute passing rates were considered, *Reading* was noted to be the strongest area for local students, followed by *Writing* and *Mathematics* in that order. When a comparison is made of local performance versus national expectations, based on the regression analyses, exactly the opposite conclusions are reached. In the comparison with national expectations, *Mathematics* performances are the strongest followed by *Writing* and *Reading*. That is, consistent conclusions are not being reached.

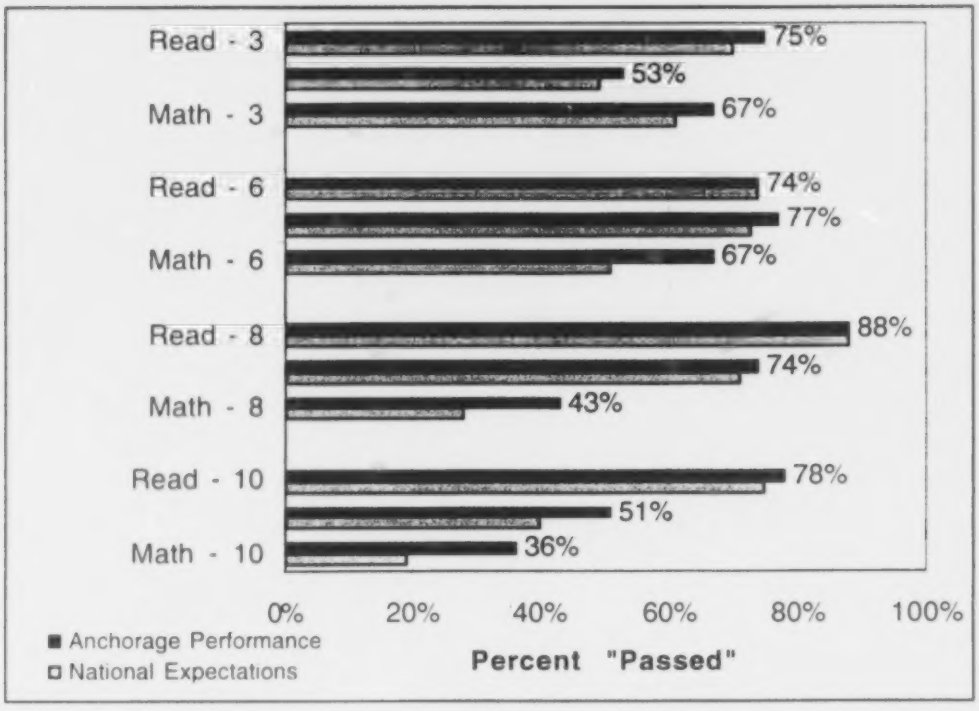
The relationship between the state tests and the *CAT* is examined further in Tables 19 and 20. Table 19 shows the passing rates on the state tests for students grouped by their performance levels on the *CAT* in the spring of 2000. The percentile groupings presented in Table 19 are frequently referred to as decile bands. Each grouping represents 10 percent of the national population.

The information in Table 19 reinforces the idea that students encounter varying levels of difficulty on the state tests. For instance, at the high school level, over half (actually two-thirds) of the students who scored between the 30th and 40th percentiles on the *CAT* passed the HSGQE in *Reading*. Only about one student in every six (17 percent) of the students who performed at this level on the *CAT* passed the *Writing* portion of the HSGQE, and only one percent of the students with scores between the 30th and 40th percentile on the *CAT* passed the HSGQE *Mathematics Test*. It was not until the percentile group corresponding to the 50th to 60th percentiles was reached that over half the students passed the *Writing Test*. In *Mathematics*, students had to score at or above the 80th percentile to have at least a 50 percent likelihood of passing the examination. When HSGQE math scores are examined relative to the national population s CAT scores, the *HSGQE Mathematics Test* appears to be a difficult test. The HSGQE *Writing Test* is not quit as difficult as math, and the *HSGQE Reading Test* is much less difficult still.

Residents of Alaska developed the standards being tested on the state examinations. The criteria for passing the tests were developed by statewide committees, with help from the national test publisher. Therefore, it can be argued the Benchmark Tests and the HSGQE represent true Alaska expectations and fairly represent the performance levels to which

Figure 9

Anchorage School District
Comparison of Percent of Anchorage Students Who Passed
the ***Benchmark***/HSGQE Tests and the Percent of the
National Population Expected to Have Passed Had They Been Tested



Alaska students should be held. However, the expectations seem not to be aligned with national levels of student performance and may be somewhat unrealistic, particularly in the mathematics area. Perhaps the availability of information such as is presented here might have shaped a slightly less aggressive statement of local expectations for all students in the mathematics area.

The relationships identified between the scores on the *Benchmark Tests* /HSGQE and the scores on the *California Achievement Tests* raise questions about the relative difficulty level of the local tests, about the content on those tests, and about the fairness of the tests to the students in the state. Those questions must be answered at the State level before parents and students, as well as the general community, can have faith and trust that the tests are both fair and valid for the uses to which they are being employed.

Table 20 demonstrates that students who were tested in the spring of their sophomore year in March 2000 and their parents may not have been adequately informed of their progress toward meeting current state standards in previous years and, in fact, may have been

Table 19

Anchorage School District
Percent of Anchorage Students Who Passed the
State ***Benchmark Tests***/HSGQE in Spring 2000
by
Performance Level on the California Achievement Test in Spring 2000

Test Area	Level of Performance on California Achievement Test (Percentile Ranges)									
Grade	10-	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90+
Reading										
Gr. 3	7%	20%	54%	63%	74%	89%	93%	97%	99%	>99%
Gr. 6	9%	23%	44%	65%	81%	91%	95%	97%	99%	99%
Gr. 8	26%	49%	65%	84%	96%	98%	99%	99%	>99%	100%
Gr. 10	20%	28%	46%	67%	85%	92%	97%	99%	99%	>99%
Writing										
Gr. 3	1%	8%	16%	32%	41%	60%	75%	81%	92%	99%
Gr. 6	7%	24%	41%	54%	69%	87%	94%	98%	99%	99%
Gr. 8	7%	19%	41%	57%	77%	87%	94%	98%	99%	100%
Gr. 10	4%	6%	5%	17%	31%	53%	69%	83%	90%	96%
Mathematics										
Gr. 3	6%	14%	20%	44%	54%	66%	80%	90%	96%	99%
Gr. 6	6%	5%	15%	25%	43%	66%	80%	90%	97%	99%
Gr. 8	0%	1%	2%	3%	10%	26%	45%	60%	84%	96%
Gr. 10	1%	0%	1%	1%	2%	11%	17%	34%	68%	94%

misinformed. The table examines historical *CAT* performances for students who passed and for students who failed the HSGQE in March 2000. The figures in the table indicate the number of students for whom historical data was available and the national percentile rank scores that corresponded to the average (mean normal curve equivalent score) *CAT* score for that group.

For students who passed the various examinations, the average scores were uniformly high. The averages for students who passed the *Reading Test* were between the 70th and 80th national percentiles. The averages for students who passed the *Writing Test* were all in excess of the 80th national percentile, and the averages for the group who passed the *Mathematics Test* were consistently in excess of the 90th percentile. That means that these students and their parents, as a group, were receiving information from standardized tests over the years that showed satisfactory to good progress. There may have been exceptions,

Table 20

Anchorage School District
Percentile Ranks that Correspond to
Historical Average Performances on the California Achievement Test

Students Who Took the HSGQE in Spring 2000

	Passed HSGQE		Did Not Pass HSGQE	
Year of CAT Test	Number	Percentile	Number	Percentile
Reading Test				
1996	1,779	72	338	25
1997	1,825	76	390	23
1998	1,940	75	427	25
1999	2,100	73	485	19
2000	2,202	74	524	17
Writing Test				
1996	1,179	83	934	42
1997	1,215	83	999	38
1998	1,290	81	1,064	35
1999	1,389	81	1,193	36
2000	835	91	1,286	31
Mathematics Test				
1996	835	91	1,263	52
1997	835	92	1,357	51
1998	906	90	1,446	47
1999	987	91	1,588	54
2000	1,017	91	1,677	47

but mostly these students were being told through the *CAT* reports that they were performing well.

The historical *CAT* performances for the students who failed portions of the HSGQE in spring of 2000 were consistently lower than the averages for the group of students who passed. Students who failed the Reading Test in the spring of 2000 consistently had average *CAT* scores that were at or below the 25th percentile. Those students, and their parents, should have been forewarned that the students were struggling in reading.

The historical *CAT Total Language Arts* scores for students who failed the HSGQE ***Writing Test*** were generally between the 31st and 42nd percentiles. The averages in this area for this group tended to decline over the period of 1996 through 2000. Many of the students in this group and their parents would have been receiving information over the years indicating either low performance or declining performance. However, because these average scores

were higher than those for the *Reading* failures, there may have been more exceptions to this general statement regarding the information students and parents were receiving.

In the *Mathematics* area, many students and parents received notice that their students were doing fine, right up to the point where they did not pass the HSGQE. The historical averages for the group who did not pass the *Mathematics* portion of the HSGQE were consistently near or in excess of the national average, the 50th percentile. Students who scored near the national average or above it would have been told that they were progressing fine within their mathematical studies. Given the historical averages for the group that failed the *Mathematics Test*, it is likely that a majority of the sophomore failures had been told that they were doing fine as they moved through their elementary and middle school years. They did not have *Benchmark* information to contradict or reinforce the *CAT* information, so an erroneous message may have been delivered, given current expectations for Alaskan high school students.

Overall, the comparison of *CAT* information with *Benchmark* and HSGQE performances raises some serious issues that need to be examined by the state. There are clear indications that, compared to normal development in the national population, the *Mathematics Test* is much harder than the *Reading Test*, with the *Writing Test* falling somewhere in between. In fact, the difficulty differences may explain the varying passing rates on the tests better than any programmatic or instructional explanations. This raises concerns that the expectations may be too high in some areas and generally suggests that the tests may not be fair to all students.

A second issue regarding proper notification of development was also noted in this review. At least in the mathematics area, there is a strong likelihood that most of the students who did not pass the HSGQE in spring 2000 had been informed through the years, along with their parents, that they were making adequate progress and demonstrating growth in mathematical talents commensurate with expectations. Not passing the *Mathematics Test* would have altered that perception, but prior notification and the opportunity to deal with the issue before getting to high school would not have taken place. This might suggest that the *Benchmark Tests* truly are important to provide proper notification of difficulties to students and parents, assuming that the *Benchmark Tests* and the HSGQE are adequately linked.

How do HSGQE performances relate to success in the classes where instruction is targeted on the tested standards?

This is a question of special importance if one considers equity among individuals who may be exposed to different educational experiences prior to testing. A recent article in the *Boston Review* suggests the basis for concern with tests that are not able to identify successful performance on the job or at school (Strum & Guiner, 2001). The special concern with the Alaska HSGQE exam is targeted on the unknown extent to which the items relate to specific instruction rather than to some arbitrarily defined standard of achievement. The problem is elaborated in a discussion of international use of entrance and exit exams.

> Entrance and exit examinations in these countries are based on a curriculum established by ministries of education at the local, regional, or national level. Rather than imposing some arbitrarily defined standard of achievement, the examinations are closely tied to what the students have studied in high school. Because teachers are aware of what students are expected to know in examinations, it becomes their responsibility to equip students with the information and skills needed to pass the examinations.
>
> These examinations typically include open-ended questions that require organization and application of knowledge, and oral examinations that require the students to express themselves verbally. A persistent question asked about the curriculum-based examinations is whether they take into account the characteristics that will be most relevant for the students success at the university level and in their later careers (Stevenson, and all, 1997 pp. 47-48).

For Anchorage School District students, the sequence of courses taken in English in the first two years of high school is fairly well prescribed. Most students take English 9 in their freshman year, followed by English 10 in their sophomore year. Although some students will not be successful in one of their courses and will have to repeat, some may be in special education classes, and some may be more advanced. The majority of students follow the English 9 and English 10 pattern through their first two years of high school. Students are required to pass an additional two years of English electives beyond English 10, including a one-semester composition course. However, most students would not have taken the composition course or any of the other English electives prior to taking the HSGQE for the first time in their sophomore year.

Table 21 presents the passing rates on the Reading and Writing Tests for students who tested as sophomores in spring 2000. The passing rates are calculated for student groups based on the highest level of English the students has passed by the end of their sophomore year. That means most students were half way through the courses identified in the table when they sat for the *HSGQE* in March 2000.

The information in Table 21 shows that most students are following the expected English course of studies. A few students have accelerated and some have fallen back, but the majority completed English 10 during their sophomore year in high school.

The data also show that, generally speaking, the further along students are the more likely they are to succeed on the language arts portions of the *HSGQE*. The need for the composition course beyond English 10 is also apparent, given that 86 percent of the sophomores who completed the second semester of English 10 passed the *Reading Test* but only 59 percent passed the *Writing Test*.

A further refinement of the relationship of performance in English classes with performance on the HSGQE is presented in Table 22. This table includes only the students who tested in March 2000 as sophomores and who had completed English 10 or beyond by the end of the 2000-01 school year. Passing rates in this table are presented for students based on their

Table 21

Anchorage School District
Performances on the HSGQE ***Reading*** and ***Writing Tests*** by
Highest Level of English Class Passed by Students[5]

Highest English Course Passed	Information for Students Who Took HSGQE: ***Reading Test*** Students at Course Level	***Reading Test*** Percent who Passed ***Reading***	***Writing Test*** Students at Course Level	***Writing Test*** Percent who Passed ***Writing***
Less than English 9-1	185	29%	171	4%
English 9-1	62	50%	61	13%
English 9-2	153	54%	153	17%
English 10-1	151	70%	149	33%
English 10-2	2,120	86%	2,125	59%
Beyond English 10-2	376	80%	372	49%
All Courses	3,047	78%	3,031	51%

grade point averages (gpa) in English 9 and English 10. Students performances in social studies, mathematics, science, or other areas were not considered in the gpa calculations reflected in Table 22. Only the grades earned in English 9 and English 10 were considered here. Also, for the purposes of calculating the gpa s, a letter grade of A was awarded 4.0 grade points, a B was awarded 3 .0 grade points, a C was awarded 2.0 grade points, and a D was awarded 1.0 grade point. Grades of F, WF, and I were counted in the calculation but were awarded 0.0 grade points. Any other grade indicator was ignored and not counted in the calculations.

Grades reflect what students have learned in class, how hard they work, and how well they meet individual teachers expectations. The data in Table 22 show there is a clear, positive relationship between grade point average in English classes and success on the HSGQE. The A students passed the Reading and Writing portions of the HSGQE at rates of 96 percent and 85 percent, respectively. The D students passed these same tests at rates of 54 percent and 18 percent, respectively.

[5] This table includes sophomores Tested in Spring 2000 and English Classes Passed as of June 2000.

Table 22

Anchorage School District
Performances on HSGQE ***Reading*** and ***Writing Tests*** by
Student Grade Point Average (GPA) in English 9 and English 10
(Students Who Had Completed English 10-2 or Beyond by June 2000)

	Information for Students Who Took HSGQE:			
	Reading Test		***Writing Test***	
English 9 & 10 GPA Levels	Students at GPA Level	Percent who Passed ***Reading***	Students at GPA Level	Percent who Passed ***Writing***
No Info. On Eng. 9 & 10 GPA	44	84%	43	65%
GPA < 1.5	194	54%	192	18%
GPA ‡ 1.5 & GPA < 2.5	603	77%	605	35%
GPA ‡ 2.5 & GPA < 3.5	930	88%	931	59%
GPA ‡ 3.5	725	96%	726	85%
All in Group	2,496	85%	2,497	58%

Both groups of students are earning credits and are moving through the courses, but the former group, the A students, is clearly better prepared for the HSGQE than the latter group, the D students. That reflects the developed abilities of the students, and it may also reflect their efforts and work habits. The cause for earning a specific grade may vary by individual. However, the data suggest that students who are working at a D level, though earning credit, may not be meeting expectations as defined by the Alaska Content and Performance Standards and as measured by the HSGQE.

The mathematics program of studies at the high school level is not as well prescribed as that for the English program. The Anchorage School District requires that students must take and pass a minimum of 2.5 credits (2-1/2 years of 1 period courses) in mathematics over their four years of high school and to demonstrate at least Algebra-level proficiency. Typically, students take a pre-algebra course, algebra, geometry, and other more advanced classes. Students may have completed some of the sequence in middle school prior to entering high school, or they may enter high school while still working on their pre-algebra skills. Currently, the typical student in Anchorage enters high school ready for entry into an algebra sequence to be followed by a geometry sequence.

As seen in Table 23, just as with the English course pattern, a direct relationship exists between the passing rates on the Mathematics portion of the HSGQE and the courses students have taken. Some 87 percent of students who are beyond geometry in their

Table 23

Anchorage School District
Performances on the HSGQE ***Mathematics Test*** by
Highest Level of Mathematics Class Passed by Students
(Sophomores Tested in Spring 2000)
(Mathematics Classes Passed as of June 2000)

	Information for Students Who Took HSGQE ***Mathematics Test***	
Highest Math Course Passed	Students at Course Level	Percent who Passed ***Mathematics***
Less than Algebra	391	2%
Part of Algebra	335	2%
Competed Algebra	803	10%
Part of Geometry	96	36%
Completed Geometry	679	49%
Beyond Geometry	702	87%
All Levels of Mathematics	3,006	36%

sophomore year passed the Mathematics Test. Conversely, only 2 percent of the students who still have not completed algebra by the sophomore year passed the Mathematics Test. It is somewhat disconcerting that only 49 percent of the students who completed their geometry sequence, but not beyond, passed the *Mathematics Test*. The local expectation had been that students who were successful in algebra and geometry would succeed on the *Mathematics Test*. The data show this was an erroneous assumption for over half of such students. The passing rate for this group also further calls into question the content and difficulty level of the HSGQE *Mathematics Test*.

Aside from being more loosely prescribed than the English program, the mathematics program also allows more than one path through some of the content areas. Students may take Algebra I in middle school, students may take Algebra I in high school, students may opt to take Algebra A and Algebra B (essentially Algebra I over two years instead of one year) in high school, or students may opt to take Survey of Algebra in high school. Any of these options would meet the Anchorage algebra requirement.

Similarly, students may take Geometry in either middle school or high school, or they may opt to take Informal Geometry in high school. Tables 24 and 25 examine the passing rates for students who followed the various sequences described above. From studying Table 24, it becomes clear that mathematics study through algebra does not prepare students for the

Table 24

Anchorage School District
Performances on the HSGQE ***Mathematics Test*** by
Type of Algebra Sequence Completed
Students Who Passed a Complete Algebra Sequence but Not Beyond
(Sophomores Tested in Spring 2000)
(Mathematics Classes Passed as of June 2000)

	Information for Students Who Took HSGQE ***Mathematics Test***	
Algebra Sequence Passed	Students at Course Level	Percent who Passed ***Mathematics***
Middle School Algebra	3	0%
Survey of Algebra	173	2%
Algebra A & B (2 year course)	324	12%
Algebra I (1 year course)	303	13%
All Algebra Sequences	803	10%

Table 25

Anchorage School District
Performances on the HSGQE ***Mathematics Test*** by
Type of Algebra Sequence Completed
Students Who Passed a Complete Geometry Sequence but Not Beyond
(Sophomores Tested in Spring 2000)
(Mathematics Classes Passed as of June 2000)

	Information for Students Who Took HSGQE ***Mathematics Test***	
Algebra Sequence Passed	Students at Course Level	Percent who Passed ***Mathematics***
Informal Geometry	61	16%
Geometry	618	53%
Both Geometry Sequences	679	49%

HSGQE *Mathematics Test*. The passing rates for the Algebra A - Algebra B sequence were similar to those for Algebra I. In both instances, about one student in eight who had completed these sequences with no additional mathematics passed the examination. Only two percent of the students whose highest-level course had been Survey of Algebra passed *the Mathematics Test*.

In a similar vein, students who had completed the regular Geometry course passed the *Mathematics Test* at a 53 percent rate while students who had completed Informal Geometry passed at only a 16 percent rate. Both passing rates are much lower than had been hoped for locally, but it is clear that the students in the Informal Geometry program are not as well prepared as the students in the regular program. Typically, students in Informal Geometry are less mathematically inclined than students in the regular program, but the expectation should be that they still develop the necessary skills and concepts to meet the state and local performance standards. To the extent those standards are measured by the *Mathematics Test*, that expectation is not being met.

One final look at the mathematics area is present in Table 26. Here, the passing rates are calculated for students who are grouped by their grade point averages in whichever algebra and geometry sequences they may have taken. Only students who had completed a geometry sequence, or courses beyond geometry, by June 2000 are included in the calculations presented in Table 30. Only the grades they earned in the Algebra and Geometry courses are included in the grade point calculation.

As with the similar information related to English, a direct relationship can be seen between how well students performed in the mathematics classes, as reflected in their grades, and how well they performed on the HSGQE *Mathematics Test*. The A level students passed at a 93 percent rate; about two-thirds of the B level students passed the test; and fewer than half of either the C (44 percent) or D (38 percent) level passed the *HSGQE Mathematics Test*. Again, the advent of the HSGQE and the subsequent information that has been garnered, suggests that the expectations for students to earn a D in courses may be too low to ensure that students are able to meet the state and local performance standards represented by the HSGQE.

Perhaps it is time rethink the grading process at the high schools. A grade of D may no longer be acceptable and perhaps should not allow students to earn credits toward graduation at this level of performance. Still, grades will need to reflect the students ability to meet the standards specified by the state and district. Anything less misinforms the students and their parents as to the students actual growth and attainment.

What should we make of all this?

The implementation of the Alaska *Benchmark Tests* and the High School Graduation Qualifying Examination is a work in progress. Discussion and debate continues around the state of Alaska, and specifically in the legislature, as to the value of the tests, the date at which the HSGQE should become a requirement, the passing scores on specific tests, and other areas. Several bills are currently pending that could substantially change or even eliminate the tests. The most likely action appears to be a two year delay in implementation

Table 26

Anchorage School District
Performances on HSGQE ***Mathematics Test*** by
Student Grade Point Average (GPA) in Algebra and Geometry
(Students Who Had a Geometry Sequence or Beyond by June 2000)

	Information for Students Who Took HSGQE ***Mathematics Test***	
Algebra Sequence Passed	Students at Course Level	Percent who Passed ***Reading***
No Info. On Algebra/Geometry GPA	19	47%
GPA < 1.5	34	38%
GPA ‡ 1.5 & GPA < 2.5	331	44%
GPA ‡ 2.5 & GPA < 3.5	533	66%
GPA ‡ 3.5	464	93%
All Algebra Sequences	1,381	69%

of the requirement for students, with continued refinement of the test instruments and local schools curriculum during the interim. Much of the argument centers on issues that fairness of the tests and validity of a test that has left no student eligible for high school graduation in one rural Alaska District.

It is necessary for Alaskans to join in the discussion of what constitutes a valid test. On the one hand, an irrefutable logic supports the activities that have been undertaken by the state to define standards, require the adoption of standards by local districts, to develop a standards-based assessment, and to establish cut scores through the use of committees of citizens with a final approval by the State School Board. On the other hand, the high failure rates, the lack of evidence that standards align with instruction, the questionable results from Opportunity to Learn Studies, the high initial failure rate on the test, and the poor performance of Anchorage students who have known success in course work, and evidence of better-than -average performance on a national norm referenced test all raise questions about the fairness and validity of the test scores. Similarly, the gross differences in performance of non-English speaking students and special education students raise questions about Opportunity to Learn and the Alaska assertion that all students should meet the standards embodied in the HSGQE.

Alaskans will be well advised to follow the path implied by Jaeger (1994) when he suggested,

> Whereas traditional validity standards might have been likened to truth in labeling laws, contemporary validity standards are more analogous to requirements for testing a new drug, with attention to side effects as well as intended benefits (p. 19).

This notion would move us toward a focus on what we can do to both assure that our judgments of individuals are really based on the traits that we desire for high school graduates and encourage us to temper these judgments by the consideration of what harm is done to those who fail and to Alaska educational institutions.

The general conclusion of this paper is that we in Alaska should give careful consideration to every element of the system as we move into high-stakes use of our tests. We could do worse than to look to the suggestions recently set out by Robert Linn (2000).

It is toward this end that the following seven suggestions based on analyses discussed above are offered as ways of enhancing the validity, credibility, and positive impact of assessment and accountability systems while minimizing their negative effects:

1. Provide safeguards against selective exclusion of students from assessments. This would reduce distortions such as those found for title I in the fall-spring testing cycle. One way of doing this is to include all students in accountability calculations.
2. Make the case that high-stakes accountability requires new high-quality assessments each year that are equated to those of previous years. Getting by on the cheap will likely lead to both distorted results (e.g., in flat non-generalizable gains) and distortions in education (e.g., the narrow teaching to the test).
3. Don t put all the weight on a single test. Instead, seek multiple indicators. The choice of construct matters and the use of multiple indicators increases the validity of inferences based upon observed gains in achievement.
4. Place more emphasis on comparisons of performance from year to year than from school to school. This allows for differences in starting points while maintaining the expectation of improvement for all.
5. Consider both value added and status in the system. Value-added provides schools that start out far from the mark a reasonable chance to show improvement while status guards against institutionalizing low expectations for those same students and schools.
6. Recognize, evaluate, and report the degree of uncertainty in the reported results.
7. Put in place a system for evaluating both the intended positive effects and the more likely unintended negative effects of the system (p. 15).

The specific conclusion based on the review of the implementation of the Alaska high-stakes tests is that there are serious questions that must be addressed now by the stakeholders at every level in the Alaska education system.

The Alaska Legislature and executive branch must resolve the problems in the implementation of the Alaska Student Assessment System and provide the resources necessary for schools to prepare students for state assessments.

The Alaska Department of Education and Early Development must continue the development and study of the assessments to assure that the assessment system generates scores that are valid for making judgements about students and schools.

Alaska school districts have to assure that students have the standards, the curriculum, the materials, and the instruction needed to assure that every student who is able to meet state standards can graduate from high school.

Alaska principals and teachers must develop an understanding of what is expected of students and provide appropriate instruction based on assessments of individual student knowledge. Students and parents need to be informed of student progress.

Alaska parents need to understand what is expected of their students and provide students with the support they need to be successful at school.

Alaska students need to understand the expectations they are facing and work hard to succeed in school.

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Appendix A

School-by-School Performances

State of Alaska Benchmark Tests

Grade 3

Spring 2000

Table 1A

Anchorage School District
Alaska Benchmark Test Results by School
Reading Test, Spring 2000
Grade 3

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Abbott Loop	83	14%	16%	53%	17%	70%
Airport Heights	38	5%	16%	66%	13%	79%
Alpenglow	87	1%	3%	55%	40%	95%t
Aquarian	21	5%	10%	71%	14%	86%
Aurora	53	2%	15%	64%	19%	83%
Baxter	53	15%	9%	51%	25%	75%
Bayshore	70	3%	6%	60%	31%	91%
Bear Valley	70	0%	6%	44%	50%	94%
Birchwood	45	7%	0%	69%	24%	93%
Bowman	83	11%	18%	53%	18%	71%
Campbell	55	15%	13%	64%	9%	73%
Chester Valley	46	13%	7%	65%	15%	80%
Chinook	80	18%	10%	61%	11%	73%
Chugach	37	0%	8%	62%	30%	92%
Chugiak Elementary	82	12%	15%	54%	20%	73%
College Gate	62	2%	10%	76%	13%	89%
Creekside Park	44	11%	18%	61%	9%	70%
Denali	55	13%	15%	55%	18%	73%
Eagle River	56	4%	13%	63%	21%	84%
Fairview	74	26%	19%	51%	4%	55%
Family Partnership	29	3%	3%	69%	24%	93%
Fire Lake	59	7%	12%	76%	5%	81%
Girdwood	12	0%	0%	67%	33%	100%
Government Hill	70	19%	14%	47%	20%	67%
Homestead	67	6%	13%	64%	16%	81%
Huffman	55	2%	5%	75%	18%	93%
Inlet View	40	18%	13%	55%	15%	70%
Jesse Lee	2	0%	0%	100%	0%	100%
Kasuun	108	12%	18%	52%	19%	70%
Kennedy	16	13%	19%	56%	13%	69%
Kincaid	85	7%	9%	58%	26%	84%
Klatt	79	14%	6%	66%	14%	80%
Lake Hood	90	10%	21%	56%	13%	69%
Lake Otis	73	5%	21%	60%	14%	74%

Table 1A (Continued)

Anchorage School District
Alaska Benchmark Test Results by School
Reading Test, Spring 2000
Grade 3

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Maplewood Home	1	0%	0%	0%	100%	100%
Mountain View	62	35%	34%	29%	2%	31%
Mt. Spurr	39	3%	5%	69%	23%	92%
Muldoon	60	13%	20%	62%	5%	67%
North Star	74	27%	27%	38%	8%	46%
North Star Hospital	3	67%	33%	0%	0%	0%
Northern Lights	70	4%	3%	57%	36%	93%
Northwood	47	15%	11%	57%	17%	74%
Nunaka Valley	48	19%	21%	52%	8%	60%
Ocean View	66	11%	6%	58%	26%	83%
O'Malley	53	2%	6%	64%	28%	92%
Orion	37	14%	8%	65%	14%	78%
Polaris	27	7%	7%	70%	15%	85%
Ptarmigan	55	11%	20%	51%	18%	69%
Rabbit Creek	58	3%	3%	81%	12%	93%
Ravenwood	53	4%	2%	51%	43%	94%
Rogers Park	84	8%	11%	56%	25%	81%
Russian Jack	60	27%	27%	42%	5%	47%
Sand Lake	76	7%	11%	72%	11%	83%
Scenic Park	75	5%	8%	73%	13%	87%
Spring Hill	74	7%	9%	61%	23%	84%
Susitna	86	8%	15%	62%	15%	77%
Taku	53	19%	17%	49%	15%	64%
Tudor	67	15%	18%	55%	12%	67%
Turnagain	64	11%	20%	56%	13%	69%
Tyson	58	24%	29%	40%	7%	47%
Ursa Major	26	0%	12%	58%	31%	88%
Ursa Minor	27	7%	15%	63%	15%	78%
Village	3	0%	0%	100%	0%	100%
Whaley	10	70%	0%	30%	0%	30%
Williwaw	83	27%	27%	42%	5%	47%
Willow Crest	74	12%	26%	53%	9%	62%
Wonder Park	71	17%	20%	55%	8%	63%
Wood	83	8%	14%	59%	18%	77%

Table 2A

Anchorage School District
Alaska Benchmark Test Results by School
Writing Test, Spring 2000
Grade 3

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Abbott Loop	81	9%	40%	47%	5%	52%
Airport Heights	38	0%	47%	50%	3%	53%
Alpenglow	87	1%	13%	78%	8%	86%
Aquarian	20	0%	30%	65%	5%	70%
Aurora	53	0%	25%	70%	6%	75%
Baxter	53	2%	42%	53%	4%	57%
Bayshore	70	4%	26%	63%	7%	70%
Bear Valley	69	0%	12%	80%	9%	88%
Birchwood	45	4%	29%	60%	7%	67%
Bowman	83	12%	40%	43%	5%	48%
Campbell	55	11%	49%	38%	2%	40%
Chester Valley	46	0%	43%	52%	4%	57%
Chinook	80	13%	41%	43%	4%	46%
Chugach	37	3%	24%	68%	5%	73%
Chugiak Elementary	82	11%	35%	50%	4%	54%
College Gate	64	5%	50%	41%	5%	45%
Creekside Park	44	7%	43%	50%	0%	50%
Denali	55	13%	45%	40%	2%	42%
Eagle River	56	4%	39%	54%	4%	57%
Fairview	75	27%	49%	24%	0%	24%
Family Partnership	31	10%	29%	61%	0%	61%
Fire Lake	59	7%	32%	59%	2%	61%
Girdwood	12	0%	42%	50%	8%	58%
Government Hill	69	13%	26%	48%	13%	61%
Homestead	66	8%	20%	67%	6%	73%
Huffman	55	2%	25%	65%	7%	73%
Inlet View	40	13%	35%	50%	3%	53%
Jesse Lee	2	0%	50%	50%	0%	50%
Kasuun	107	3%	38%	52%	7%	59%
Kennedy	16	6%	50%	44%	0%	44%
Kincaid	86	7%	28%	59%	6%	65%
Klatt	79	10%	42%	47%	1%	48%
Lake Hood	90	12%	49%	38%	1%	39%
Lake Otis	73	8%	45%	44%	3%	47%

Table 2A (Continued)

Anchorage School District
Alaska Benchmark Test Results by School
Writing Test, Spring 2000
Grade 3

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Maplewood Home	1	0%	0%	100%	0%	100%
Mountain View	62	34%	50%	15%	2%	16%
Mt. Spurr	39	3%	31%	64%	3%	67%
Muldoon	62	16%	50%	34%	0%	34%
North Star	73	23%	48%	29%	0%	29%
North Star Hospital	3	67%	33%	0%	0%	0%
Northern Lights	70	1%	13%	74%	11%	86%
Northwood	48	8%	35%	56%	0%	56%
Nunaka Valley	48	17%	44%	40%	0%	40%
Ocean View	66	5%	33%	61%	2%	62%
O'Malley	54	2%	26%	72%	0%	72%
Orion	37	8%	49%	41%	3%	43%
Polaris	27	0%	48%	44%	7%	52%
Ptarmigan	54	15%	33%	46%	6%	52%
Rabbit Creek	58	0%	34%	60%	5%	66%
Ravenwood	53	2%	21%	62%	15%	77%
Rogers Park	84	6%	26%	50%	18%	68%
Russian Jack	59	29%	47%	24%	0%	24%
Sand Lake	76	8%	36%	47%	9%	57%
Scenic Park	76	9%	29%	58%	4%	62%
Spring Hill	74	3%	45%	51%	1%	53%
Susitna	85	12%	36%	46%	6%	52%
Taku	54	20%	35%	43%	2%	44%
Tudor	67	15%	34%	45%	6%	51%
Turnagain	64	6%	45%	42%	6%	48%
Tyson	58	22%	50%	26%	2%	28%
Ursa Major	26	8%	15%	73%	4%	77%
Ursa Minor	27	7%	41%	44%	7%	52%
Village	3	0%	100%	0%	0%	0%
Whaley	7	71%	29%	0%	0%	0%
Williwaw	84	21%	56%	23%	0%	23%
Willow Crest	76	12%	46%	41%	1%	42%
Wonder Park	72	19%	47%	33%	0%	33%
Wood	83	5%	46%	47%	2%	49%

Table 3A

Anchorage School District
Alaska Benchmark Test Results by School
Mathematics Test, Spring 2000
Grade 3

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Abbott Loop	82	15%	22%	45%	18%	63%
Airport Heights	38	3%	26%	37%	34%	71%
Alpenglow	87	2%	6%	37%	55%	92%
Aquarian	20	0%	20%	40%	40%	80%
Aurora	53	2%	23%	45%	30%	75%
Baxter	53	8%	17%	47%	28%	75%
Bayshore	70	6%	14%	47%	33%	80%
Bear Valley	70	0%	7%	37%	56%	93%
Birchwood	45	4%	22%	44%	29%	73%
Bowman	84	13%	20%	38%	29%	67%
Campbell	55	9%	29%	40%	22%	62%
Chester Valley	46	7%	26%	28%	39%	67%
Chinook	80	19%	16%	39%	26%	65%
Chugach	37	0%	19%	30%	51%	81%
Chugiak Elementary	83	11%	22%	31%	36%	67%
College Gate	64	8%	34%	34%	23%	58%
Creekside Park	42	10%	29%	36%	26%	62%
Denali	54	13%	24%	24%	39%	63%
Eagle River	56	13%	29%	30%	29%	59%
Fairview	73	21%	27%	36%	16%	52%
Family Partnership	33	15%	12%	36%	36%	73%
Fire Lake	59	7%	25%	39%	29%	68%
Girdwood	13	8%	0%	54%	38%	92%
Government Hill	70	17%	19%	39%	26%	64%
Homestead	66	8%	17%	39%	36%	76%
Huffman	55	2%	5%	45%	47%	93%
Inlet View	40	18%	18%	40%	25%	65%
Jesse Lee	2	0%	50%	50%	0%	50%
Kasuun	107	12%	31%	33%	24%	57%
Kennedy	16	13%	44%	44%	0%	44%
Kincaid	86	2%	20%	42%	36%	78%
Klatt	78	13%	31%	41%	15%	56%
Lake Hood	90	11%	28%	40%	21%	61%
Lake Otis	73	11%	27%	45%	16%	62%

Table 3A (Continued)

Anchorage School District
Alaska Benchmark Test Results by School
Mathematics Test, Spring 2000
Grade 3

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Maplewood Home	1	0%	0%	0%	100%	100%
Mountain View	62	35%	45%	19%	0%	19%
Mt. Spurr	39	0%	31%	31%	38%	69%
Muldoon	61	16%	36%	41%	7%	48%
North Star	74	19%	32%	36%	12%	49%
North Star Hospital	3	67%	33%	0%	0%	0%
Northern Lights	70	0%	10%	39%	51%	90%
Northwood	48	0%	25%	52%	23%	75%
Nunaka Valley	49	20%	31%	43%	6%	49%
Ocean View	66	6%	17%	42%	35%	77%
O'Malley	54	0%	13%	37%	50%	87%
Orion	37	11%	41%	35%	14%	49%
Polaris	27	0%	26%	26%	48%	74%
Ptarmigan	56	16%	27%	36%	21%	57%
Rabbit Creek	58	7%	7%	45%	41%	86%
Ravenwood	53	2%	9%	32%	57%	89%
Rogers Park	84	4%	14%	33%	49%	82%
Russian Jack	61	25%	30%	38%	8%	46%
Sand Lake	76	9%	11%	39%	41%	80%
Scenic Park	76	7%	24%	41%	29%	70%
Spring Hill	74	5%	22%	45%	28%	73%
Susitna	85	11%	24%	40%	26%	66%
Taku	54	17%	17%	44%	22%	67%
Tudor	67	13%	18%	42%	27%	69%
Turnagain	61	16%	23%	38%	23%	61%
Tyson	58	17%	38%	40%	5%	45%
Ursa Major	26	12%	15%	42%	31%	73%
Ursa Minor	27	0%	19%	63%	19%	81%
Village	3	0%	33%	67%	0%	67%
Whaley	7	86%	0%	14%	0%	14%
Williwaw	84	21%	31%	39%	8%	48%
Willow Crest	76	14%	24%	41%	21%	62%
Wonder Park	72	26%	28%	33%	13%	46%
Wood	83	7%	19%	42%	31%	73%

Appendix B

School-by-School Performances

State of Alaska Benchmark Tests

Grade 6

Spring 2000

Table 1B

Anchorage School District
Alaska Benchmark Test Results by School
Reading Test, Spring 2000
Grade 6

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Abbott Loop	83	11%	22%	34%	34%	67%
Airport Heights	44	7%	20%	27%	45%	73%
Alpenglow	95	5%	7%	21%	66%	87%
Aquarian	16	0%	38%	19%	44%	63%
Aurora	49	2%	12%	39%	47%	86%
Baxter	77	9%	16%	34%	42%	75%
Bayshore	82	1%	13%	21%	65%	85%
Bear Valley	83	1%	1%	31%	66%	98%
Birchwood	27	11%	19%	30%	41%	70%
Bowman	72	7%	7%	28%	58%	86%
Campbell	85	7%	28%	28%	36%	65%
Chester Valley	61	15%	11%	28%	46%	74%
Chinook	92	16%	25%	32%	27%	59%
Chugach	37	0%	8%	22%	70%	92%
College Gate	64	13%	20%	20%	47%	67%
Creekside Park	55	5%	25%	22%	47%	69%
Denali	67	9%	24%	22%	45%	67%
Eagle River	56	5%	14%	27%	54%	80%
Fairview	61	23%	48%	11%	18%	30%
Family Partnership	30	3%	7%	10%	80%	90%
Girdwood	17	0%	24%	41%	35%	76%
Government Hill	30	3%	20%	33%	43%	77%
Homestead	54	9%	11%	26%	54%	80%
Huffman	85	1%	7%	28%	64%	92%
Inlet View	33	6%	12%	24%	58%	82%
Jesse Lee	1	0%	0%	100%	0%	100%
Kasuun	87	3%	17%	25%	54%	79%
Kennedy	27	4%	19%	37%	41%	78%
Kincaid	89	3%	7%	22%	67%	90%
Klatt	69	6%	25%	25%	45%	70%
Lake Hood	68	4%	18%	28%	50%	78%
Lake Otis	52	4%	23%	25%	48%	73%
Mirror Lake	201	3%	14%	31%	51%	83%
Mountain View	50	26%	36%	26%	12%	38%

Table 1B (Continued)

Anchorage School District
Alaska Benchmark Test Results by School
Reading Test, Spring 2000
Grade 6

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Mt. Spurr	35	0%	14%	26%	60%	86%
Muldoon	51	31%	24%	31%	14%	45%
North Star	73	22%	25%	26%	27%	53%
North Star Hospital	2	50%	0%	0%	50%	50%
Northern Lights	55	4%	7%	22%	67%	89%
Northwood	51	14%	22%	29%	35%	65%
Nunaka Valley	61	7%	26%	31%	36%	67%
Ocean View	48	0%	8%	29%	63%	92%
O'Malley	79	4%	4%	18%	75%	92%
Orion	42	5%	14%	33%	48%	81%
Polaris	42	2%	7%	21%	69%	90%
Ptarmigan	48	8%	25%	31%	35%	67%
Rabbit Creek	76	4%	5%	37%	54%	91%
Ravenwood	73	1%	15%	12%	71%	84%
Rogers Park	97	3%	8%	26%	63%	89%
Russian Jack	41	41%	12%	32%	15%	46%
Sand Lake	90	8%	12%	29%	51%	80%
Scenic Park	88	8%	17%	32%	43%	75%
Spring Hill	82	5%	16%	32%	48%	79%
Susitna	84	15%	19%	25%	40%	65%
Taku	53	9%	9%	40%	42%	81%
Tudor	66	14%	29%	23%	35%	58%
Turnagain	51	6%	18%	20%	57%	76%
Tyson	54	17%	30%	30%	24%	54%
Ursa Major	18	6%	6%	33%	56%	89%
Ursa Minor	20	5%	25%	20%	50%	70%
Village	1	0%	0%	0%	100%	100%
Whaley	11	82%	18%	0%	0%	0%
Williwaw	69	10%	25%	41%	25%	65%
Willow Crest	63	14%	25%	27%	33%	60%
Wonder Park	66	23%	26%	29%	23%	52%
Wood	74	12%	18%	36%	34%	70%

Table 2B

Anchorage School District
Alaska Benchmark Test Results by School
Writing Test, Spring 2000
Grade 6

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Abbott Loop	83	2%	23%	58%	17%	75%
Airport Heights	44	5%	20%	50%	25%	75%
Alpenglow	95	0%	8%	51%	41%	92%
Aquarian	16	0%	31%	56%	13%	69%
Aurora	49	0%	8%	80%	12%	92%
Baxter	77	5%	22%	57%	16%	73%
Bayshore	82	0%	6%	54%	40%	94%
Bear Valley	83	0%	7%	60%	33%	93%
Birchwood	27	4%	26%	44%	26%	70%
Bowman	73	4%	7%	55%	34%	89%
Campbell	84	5%	25%	57%	13%	70%
Chester Valley	61	8%	13%	54%	25%	79%
Chinook	92	3%	36%	50%	11%	61%
Chugach	36	0%	6%	58%	36%	94%
College Gate	64	9%	27%	44%	20%	64%
Creekside Park	55	0%	20%	64%	16%	80%
Denali	66	5%	26%	47%	23%	70%
Eagle River	56	2%	21%	48%	29%	77%
Fairview	62	6%	63%	29%	2%	31%
Family Partnership	33	6%	3%	48%	42%	91%
Girdwood	17	0%	12%	65%	24%	88%
Government Hill	31	6%	16%	61%	16%	77%
Homestead	53	0%	17%	60%	23%	83%
Huffman	85	0%	6%	47%	47%	94%
Inlet View	33	3%	12%	52%	33%	85%
Jesse Lee	1	0%	100%	0%	0%	0%
Kasuun	87	0%	13%	53%	34%	87%
Kennedy	27	0%	15%	56%	30%	85%
Kincaid	89	2%	7%	47%	44%	91%
Klatt	70	0%	17%	63%	20%	83%
Lake Hood	68	0%	18%	54%	28%	82%
Lake Otis	52	4%	23%	46%	27%	73%
Mirror Lake	200	1%	20%	59%	21%	79%
Mountain View	50	6%	50%	42%	2%	44%

Table 2B (Continued)

Anchorage School District
Alaska Benchmark Test Results by School
Writing Test, Spring 2000
Grade 6

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Mt. Spurr	35	0%	9%	49%	43%	91%
Muldoon	50	14%	46%	36%	4%	40%
North Star	73	10%	37%	42%	11%	53%
North Star Hospital	2	50%	50%	0%	0%	0%
Northern Lights	55	0%	4%	36%	60%	96%
Northwood	51	6%	33%	53%	8%	61%
Nunaka Valley	61	0%	28%	59%	13%	72%
Ocean View	48	2%	6%	56%	35%	92%
O'Malley	79	0%	6%	42%	52%	94%
Orion	42	0%	19%	50%	31%	81%
Polaris	42	0%	10%	55%	36%	90%
Ptarmigan	47	2%	32%	47%	19%	66%
Rabbit Creek	76	0%	11%	50%	39%	89%
Ravenwood	73	0%	11%	45%	44%	89%
Rogers Park	97	1%	14%	42%	42%	85%
Russian Jack	41	10%	34%	56%	0%	56%
Sand Lake	90	2%	19%	56%	23%	79%
Scenic Park	88	2%	20%	51%	26%	77%
Spring Hill	82	1%	13%	50%	35%	85%
Susitna	85	0%	34%	41%	25%	66%
Taku	53	4%	19%	60%	17%	77%
Tudor	66	2%	39%	38%	21%	59%
Turnagain	51	2%	16%	45%	37%	82%
Tyson	54	4%	33%	57%	6%	63%
Ursa Major	18	6%	6%	78%	11%	89%
Ursa Minor	20	0%	20%	45%	35%	80%
Village	1	0%	0%	100%	0%	100%
Whaley	9	67%	33%	0%	0%	0%
Williwaw	69	6%	36%	55%	3%	58%
Willow Crest	64	6%	23%	55%	16%	70%
Wonder Park	66	5%	48%	39%	8%	47%
Wood	74	5%	22%	55%	18%	73%

Table 3B

Anchorage School District
Alaska Benchmark Test Results by School
Mathematics Test, Spring 2000
Grade 6

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Abbott Loop	83	28%	17%	37%	18%	55%
Airport Heights	44	14%	23%	41%	23%	64%
Alpenglow	95	14%	1%	29%	56%	85%
Aquarian	16	0%	13%	50%	38%	88%
Aurora	49	12%	12%	53%	22%	76%
Baxter	77	23%	10%	32%	34%	66%
Bayshore	82	5%	12%	32%	51%	83%
Bear Valley	83	4%	8%	27%	61%	88%
Birchwood	27	26%	7%	44%	22%	67%
Bowman	72	7%	11%	43%	39%	82%
Campbell	85	27%	26%	33%	14%	47%
Chester Valley	61	18%	15%	41%	26%	67%
Chinook	93	32%	25%	32%	11%	43%
Chugach	36	6%	19%	36%	39%	75%
College Gate	64	25%	22%	25%	28%	53%
Creekside Park	55	13%	15%	42%	31%	73%
Denali	66	27%	9%	35%	29%	64%
Eagle River	56	11%	16%	38%	36%	73%
Fairview	63	54%	17%	19%	10%	29%
Family Partnership	32	13%	9%	25%	53%	78%
Girdwood	17	18%	18%	47%	18%	65%
Government Hill	30	27%	13%	40%	20%	60%
Homestead	54	15%	9%	37%	39%	76%
Huffman	85	7%	6%	24%	64%	87%
Inlet View	33	24%	9%	27%	39%	67%
Jesse Lee	1	100%	0%	0%	0%	0%
Kasuun	87	9%	13%	40%	38%	78%
Kennedy	27	26%	19%	37%	19%	56%
Kincaid	89	3%	12%	33%	52%	84%
Klatt	68	13%	18%	44%	25%	69%
Lake Hood	68	18%	13%	46%	24%	69%
Lake Otis	52	27%	12%	40%	21%	62%
Mirror Lake	202	9%	18%	38%	34%	72%
Mountain View	50	52%	12%	26%	10%	36%

Table 3B (Continued)

Anchorage School District
Alaska Benchmark Test Results by School
Mathematics Test, Spring 2000
Grade 6

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Mt. Spurr	35	11%	3%	29%	57%	86%
Muldoon	51	49%	14%	29%	8%	37%
North Star	73	45%	15%	27%	12%	40%
North Star Hospital	2	50%	50%	0%	0%	0%
Northern Lights	55	0%	7%	38%	55%	93%
Northwood	51	22%	16%	39%	24%	63%
Nunaka Valley	61	16%	20%	36%	28%	64%
Ocean View	48	6%	8%	25%	60%	85%
O'Malley	79	8%	1%	25%	66%	91%
Orion	42	14%	17%	43%	26%	69%
Polaris	42	10%	21%	26%	43%	69%
Ptarmigan	48	13%	19%	38%	31%	69%
Rabbit Creek	76	8%	3%	38%	51%	89%
Ravenwood	73	10%	8%	25%	58%	82%
Rogers Park	97	11%	8%	27%	54%	80%
Russian Jack	41	46%	12%	29%	12%	41%
Sand Lake	90	20%	7%	33%	40%	73%
Scenic Park	88	25%	13%	27%	35%	63%
Spring Hill	81	14%	20%	28%	38%	67%
Susitna	85	24%	16%	19%	41%	60%
Taku	53	13%	11%	36%	40%	75%
Tudor	66	33%	18%	26%	23%	48%
Turnagain	50	12%	18%	26%	44%	70%
Tyson	55	35%	16%	22%	27%	49%
Ursa Major	18	6%	17%	39%	39%	78%
Ursa Minor	20	20%	10%	40%	30%	70%
Village	1	0%	0%	0%	100%	100%
Whaley	9	89%	0%	11%	0%	11%
Williwaw	68	34%	24%	31%	12%	43%
Willow Crest	64	27%	16%	39%	19%	58%
Wonder Park	64	45%	16%	25%	14%	39%
Wood	74	22%	14%	42%	23%	65%

Appendix C

School-by-School Performances

State of Alaska Benchmark Tests

Grade 8

Spring 2000

Table 1C

Anchorage School District
Alaska Benchmark Test Results by School
Reading Test, Spring 2000
Grade 8

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Benson	37	5%	8%	30%	57%	86%
Birchwood	26	0%	0%	15%	85%	100%
Booth	6	17%	17%	33%	33%	67%
Central	338	5%	7%	15%	73%	88%
Clark	345	14%	12%	25%	49%	74%
Family Partnership	23	0%	0%	30%	70%	100%
Girdwood	14	7%	0%	7%	86%	93%
Goldenview	403	2%	2%	12%	83%	95%
Gruening	290	1%	2%	16%	81%	97%
Hanshew	412	5%	5%	17%	72%	90%
Jesse Lee	4	50%	0%	25%	25%	50%
McLaughlin	11	18%	9%	18%	55%	73%
Mears	460	6%	7%	20%	68%	87%
Mirror Lake	238	7%	3%	13%	76%	90%
Northern Lights	25	0%	4%	12%	84%	96%
Polaris	41	0%	0%	5%	95%	100%
Romig	322	7%	7%	20%	66%	86%
Steller	47	0%	2%	6%	91%	98%
Village Charter	1	100%	0%	0%	0%	0%
Walden Pond	23	26%	13%	22%	39%	61%
Wendler	465	7%	7%	21%	64%	86%
Whaley	8	88%	13%	0%	0%	0%

Table 2C

Anchorage School District
Alaska Benchmark Test Results by School
Writing Test, Spring 2000
Grade 8

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Benson	37	3%	43%	51%	3%	54%
Birchwood	26	0%	31%	46%	23%	69%
Booth	7	0%	71%	29%	0%	29%
Central	339	1%	20%	54%	25%	79%
Clark	344	5%	41%	46%	8%	54%
Family Partnership	24	0%	21%	58%	21%	79%
Girdwood	14	0%	0%	64%	36%	100%
Goldenview	403	0%	11%	39%	49%	88%
Gruening	294	0%	14%	56%	30%	85%
Hanshew	411	1%	24%	49%	26%	75%
Jesse Lee	4	25%	50%	25%	0%	25%
McLaughlin	12	0%	67%	33%	0%	33%
Mears	465	1%	27%	51%	20%	72%
Mirror Lake	236	2%	19%	57%	22%	79%
Northern Lights	24	0%	13%	63%	25%	88%
Polaris	41	0%	7%	61%	32%	93%
Romig	318	2%	24%	53%	21%	74%
Steller	47	0%	9%	49%	43%	91%
Village Charter	1	0%	100%	0%	0%	0%
Walden Pond	22	5%	50%	36%	9%	45%
Wendler	462	3%	29%	52%	17%	68%
Whaley	11	82%	18%	0%	0%	0%

Table 3C

Anchorage School District
Alaska Benchmark Test Results by School
Mathematics Test, Spring 2000
Grade 8

School	Number Tested	Percent of students who were rated . . . Not Prof.	Below Prof.	Proficient	Advanced	Percent "Passed"
Benson	36	36%	58%	6%	0%	6%
Birchwood	26	4%	50%	27%	19%	46%
Booth	5	40%	60%	0%	0%	0%
Central	337	17%	37%	33%	12%	46%
Clark	340	26%	52%	19%	3%	22%
Family Partnership	22	14%	50%	32%	5%	36%
Girdwood	14	0%	29%	43%	29%	71%
Goldenview	400	6%	31%	45%	18%	63%
Gruening	294	8%	42%	39%	11%	50%
Hanshew	410	13%	45%	35%	8%	43%
Jesse Lee	4	75%	25%	0%	0%	0%
McLaughlin	10	40%	60%	0%	0%	0%
Mears	465	12%	46%	37%	6%	42%
Mirror Lake	234	12%	47%	35%	7%	42%
Northern Lights	25	4%	48%	48%	0%	48%
Polaris	40	0%	30%	53%	18%	70%
Romig	320	14%	39%	35%	12%	47%
Steller	46	0%	37%	50%	13%	63%
Village Charter	1	100%	0%	0%	0%	0%
Walden Pond	22	32%	55%	14%	0%	14%
Wendler	467	20%	45%	27%	9%	36%
Whaley	13	85%	15%	0%	0%	0%

Appendix D

School-by-School Performances

High School Graduation Qualifying Examination

Grade 10

Spring 2000

Table 1D

Anchorage School District
High School Graduation Qualifying Examination Results by School
Reading Test, Spring 2000
Grade 10

School	Number Tested	Percent Not Passed	Percent "Passed"
AVAIL	6	33%	67%
Bartlett	447	27%	73%
Benson	30	43%	57%
Booth Memorial	12	42%	58%
Chugiak High	483	12%	88%
Dimond	492	18%	82%
East	478	30%	70%
Family Partnership	22	5%	95%
High School Completion	5	20%	80%
Jesse Lee	6	17%	83%
McLaughlin	47	51%	49%
Polaris	37	11%	89%
SAVE	18	33%	67%
Service	505	13%	87%
Steller	43	7%	93%
Walden Pond	21	57%	43%
West	383	27%	73%
Whaley	12	83%	17%

Table 2D

Anchorage School District
High School Graduation Qualifying Examination Results by School
Writing Test, Spring 2000
Grade 10

School	Number Tested	Percent Not Passed	Percent "Passed"
AVAIL	6	83%	17%
Bartlett	435	60%	40%
Benson	31	87%	13%
Booth Memorial	11	64%	36%
Chugiak High	480	44%	56%
Dimond	489	47%	53%
East	477	53%	47%
Family Partnership	19	42%	58%
High School Completion	5	100%	0%
Jesse Lee	6	100%	0%
McLaughlin	47	91%	9%
Polaris	37	38%	62%
SAVE	18	94%	6%
Service	511	33%	67%
Steller	43	21%	79%
Walden Pond	20	80%	20%
West	385	54%	46%
Whaley	11	100%	0%

Table 3D

Anchorage School District
High School Graduation Qualifying Examination Results by School
Mathematics Test, Spring 2000
Grade 10

School	Number Tested	Percent Not Passed	Percent "Passed"
AVAIL	6	100%	0%
Bartlett	435	75%	25%
Benson	30	100%	0%
Booth Memorial	12	92%	8%
Chugiak High	480	55%	45%
Dimond	483	62%	38%
East	474	70%	30%
Family Partnership	21	62%	38%
High School Completion	3	67%	33%
Jesse Lee	6	100%	0%
McLaughlin	46	93%	7%
Polaris	37	46%	54%
SAVE	16	94%	6%
Service	511	50%	50%
Steller	43	37%	63%
Walden Pond	21	90%	10%
West	373	71%	29%
Whaley	9	100%	0%

Appendix E

School-by-School Performances

High School Graduation Qualifying Examination

Grade 11

Fall 2000

Table 1E

Anchorage School District
High School Graduation Qualifying Examination Results by School
Reading Test, Fall 2000
Grade 11

School	Number Tested	Percent Not Passed	Percent "Passed"
AVAIL	18	56%	44%
Bartlett	143	51%	49%
Benson	19	74%	26%
Booth Memorial	1	0%	100%
Chugiak High	80	36%	64%
Dimond	98	51%	49%
East	173	57%	43%
Family Partnership	6	0%	100%
McLaughlin	46	59%	41%
Polaris	3	0%	100%
SAVE	75	53%	47%
Service	86	36%	64%
Steller	7	14%	86%
Walden Pond	8	50%	50%
West	104	71%	29%
Whaley	4	100%	0%

Table 2E

Anchorage School District
High School Graduation Qualifying Examination Results by School
Writing Test, Fall 2000
Grade 11

School	Number Tested	Percent Not Passed	Percent "Passed"
AVAIL	17	88%	12%
Bartlett	243	72%	28%
Benson	40	93%	8%
Booth Memorial	1	100%	0%
Chugiak High	204	64%	36%
Dimond	229	77%	23%
East	263	81%	19%
Family Partnership	11	55%	45%
King Career Center	1	100%	0%
McLaughlin	53	83%	17%
Polaris	12	75%	25%
SAVE	84	85%	15%
Service	172	65%	35%
Steller	13	38%	63%
Walden Pond	13	92%	8%
West	193	86%	14%
Whaley	5	100%	0%

Table 3E

Anchorage School District
High School Graduation Qualifying Examination Results by School
Mathematics Test, Fall 2000
Grade 11

School	Number Tested	Percent Not Passed	Percent "Passed"
AVAIL	21	100%	0%
Bartlett	285	81%	19%
Benson	43	98%	2%
Booth Memorial	4	100%	0%
Chugiak High	245	68%	32%
Dimond	304	76%	24%
East	332	80%	20%
Family Partnership	12	58%	42%
King Career Center	2	50%	50%
McLaughlin	52	88%	12%
Polaris	14	79%	21%
SAVE	78	91%	9%
Service	240	68%	32%
Steller	16	44%	56%
Walden Pond	15	100%	0%
West	246	83%	17%
Whaley	6	83%	17%

Appendix F

Status of 2000-01 Juniors Relative to the HSGQE

By

Demographic Groupings

Table 1F

Anchorage School District
Percent of Juniors Passing Portions of the HSGQE
by Demographic Background

Group	Number in Group	Percent Passing . . . Reading	Writing	Mathematics
Heritage:				
Alaskan Native	264	59%	38%	25%
American Indian	44	82%	41%	30%
Asian/Pacific Islander	234	59%	41%	38%
African	255	62%	34%	18%
Filipino	69	72%	45%	28%
Hispanic	158	63%	39%	28%
Caucasian	2,105	85%	63%	53%
Other	24	33%	21%	8%
Gender:				
Female	1,568	81%	65%	43%
Male	1,585	73%	45%	45%
English Speaking Group:				
Mostly-Totally Non-English	172	43%	20%	24%
Speaker of English and Another Language	183	64%	38%	27%
English Speaker/Other Interference	95	52%	32%	24%
English Speak	2,703	81%	59%	47%
Identified Special Education:				
Special Education – Physical Exceptionality	30	40%	20%	17%
Special Education – Mental/ Emotional Exceptionality	330	45%	10%	11%
Not Special Education	2,793	81%	61%	48%

Table 2F

Anchorage School District
Percent of Juniors Passing Cumulative Portions of the HSGQE
by Demographic Background

Group	Number in Group	Percent Passing . . . Three Tests	Two Tests	One Test	Zero Tests
Heritage:					
Alaskan Native	264	19%	21%	22%	38%
American Indian	44	23%	20%	43%	14%
Asian/Pacific Islander	234	29%	15%	21%	35%
African	255	15%	21%	26%	38%
Filipino	69	26%	17%	32%	25%
Hispanic	158	25%	17%	22%	37%
Caucasian	2,105	46%	22%	17%	14%
Other	24	8%	8%	21%	63%
Gender:					
Female	1,568	40%	25%	17%	17%
Male	1,585	36%	17%	22%	25%
English Speaking Group:					
Mostly-Totally Non-English	172	12%	13%	25%	50%
Speaker of English and Another Language	183	23%	17%	26%	34%
English Speaker/Other Interference	95	20%	16%	16%	48%
English Speak	2,703	41%	22%	19%	18%
Identified Special Education:					
Special Education – Physical Exceptionality	30	10%	17%	13%	60%
Special Education – Mental/ Emotional Exceptionality	330	3%	12%	31%	54%
Not Special Education	2,793	42%	22%	18%	17%